

INDIA SKILLS REPORT 2022



RE-ENGINEERING

EDUCATION AND SKILLING

AN INITIATIVE OF

Wheebox
Measuring World's Talent and Skill Potential



Academia Partner



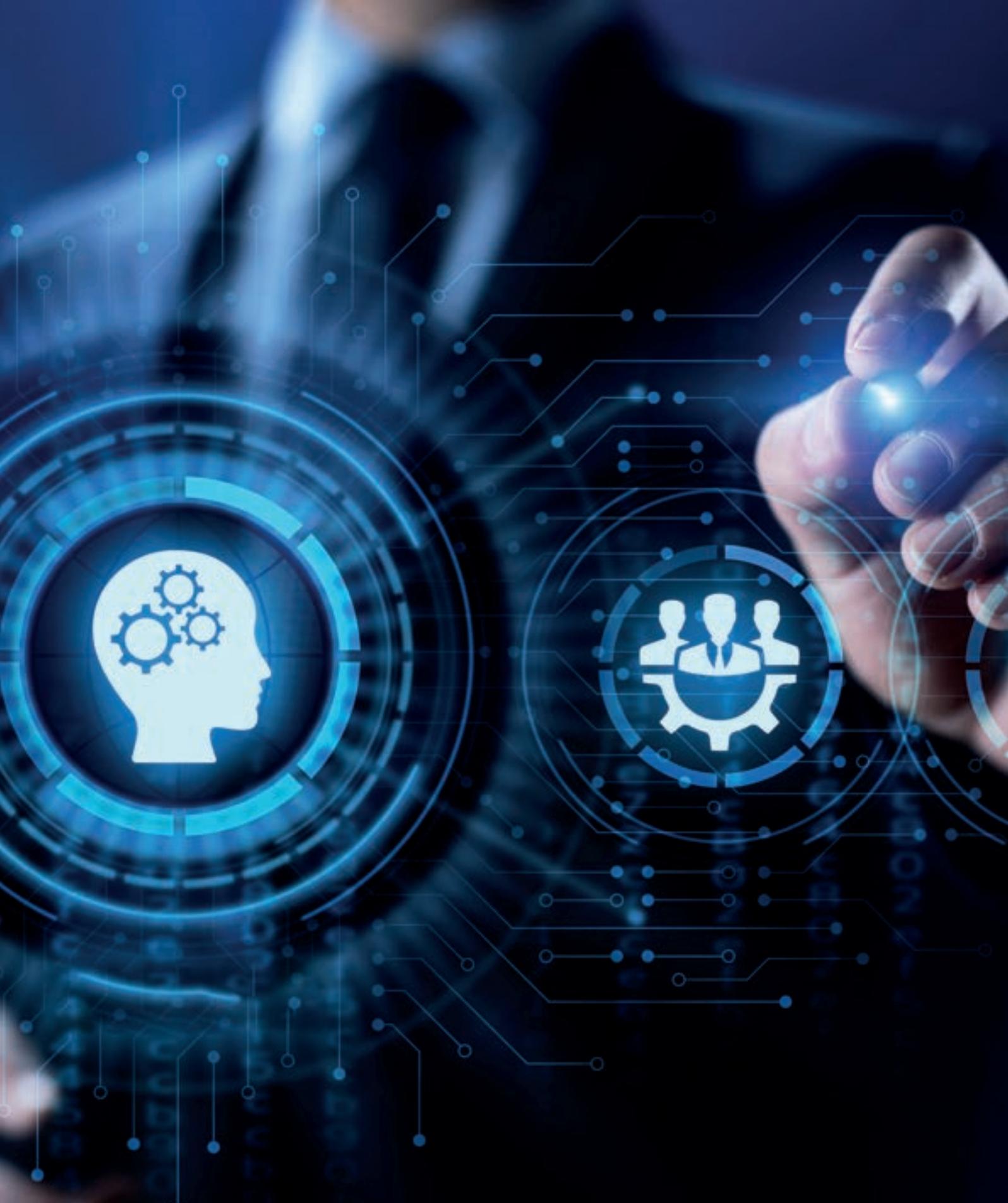
Confederation of Indian Industry

India Partner



By PeopleStrong

Knowledge Partner



**RE-ENGINEERING EDUCATION AND SKILLING
BUILDING FOR THE FUTURE OF WORK**

About The Team



Wheebox Talent Assessments

Wheebox is a global leader in Remote Proctored Assessment which is the leading online talent assessment platform, having affiliations with the top corporations, educational institutions, and organizations across numerous verticals. Through strategic partnerships, Wheebox devises methods to identify, retain, and upskill talent using the most innovative standardized tests for learning requirements and pre-hiring. With over 10 million users actively benchmarked across the world, Wheebox aspires to achieve the vision of measuring the world's talent. Last year alone Wheebox conducted 15 million tests last year, of which 13.5 million were Proctored Tests. Partnerships with Fortune 500 companies and large, medium- and small-sized enterprises ensure that Wheebox harnesses the capacity to execute skill development initiatives and hires the best practices across industries. The continued partnerships with diverse educational institutions and organizations is the basis to the proprietary 'Wheebox National Employability Test' (WNET), which focuses on the final year students and postgraduates. The test decodes the competencies and skills required to be employable in a rapidly evolving socio-economic setting. Wheebox positions the "India Skills Report" as a clear insight into the supply of skills and talent available among India's vast youth talent. Working closely with Education and Academia, Wheebox

identifies and standardizes key competency areas for various professions across industry verticals. The test derives incisive reports to develop employment skills and competencies with a network of partners such as the Confederation of Indian Industry, Association of Indian Universities, United Nations Development Program, All India Council for Technical Education, Additional Skill Acquisition Programme, and PeopleStrong. Wheebox delivers the State Skill Report by partnering with Indian states to project and propel the talent pool of the country with a detailed study of emerging trends. Additionally, by partnering with The Ministry of Labor and Employment, Wheebox generates the BARO Career Interest Report that enables candidates to make a more informed career decision on the "National Career Service" across nationwide "Model Career Centers." Equipped with the vision to measure the global talent, Wheebox has gathered and deployed valuable intelligence about rapidly changing employment patterns & competencies and the overall employability landscape at large. The ISR 2022 report explores the advancements of Re-engineering Education and Skilling - Building for the Future of Work in 2022 and beyond.

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 believes hiring right should be non-incidental. It's not just a belief but is Taggd's way of working. And the Taggd talent platform does that by democratising the art and science of hiring. 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.

Sunstone Eduversity

Sunstone Eduversity is India's leading higher education provider that invests in upskilling students across the country. As a placement catalyst, Sunstone incorporates a blend of practical and theoretical education to deliver job-ready skillsets. In collaboration with 24+ campuses spread across 19+ Indian cities, Sunstone offers 7+ tailored programs that are leveraged to enhance employability. Sunstone's unique blend of the latest technology, hybrid learning and unparalleled focus on personality development, provides students with a holistic educational experience.

Confederation of Indian Industry (CII)

The Confederation of Indian Industry (CII) is entrusted with sustaining development in India through partnering industries, government entities, civil societies, and organizations as an advisory and consultant. CII is a non-profit, non-government entity that is driven by industries and managed organizations responsible for spearheading various national development schemes. Founded in 1895, the premier association is made up of 9000+ members from private and public sectors, MNCs and SMEs across the nation. With more than 300,000 enterprise affiliations and memberships, the CII spans 291 regional and national industries and sectors.

CII collaborates with industry leaders and the government to project sustainable development modules and policies. With a range of specialized services and a vast global reach, with its aim being boosting competitiveness & efficiency and creating opportunities for economic and social growth. CII is a renowned networking platform handling pressing issues pertinent to sustainable development with a growing affiliate body. It enables industries to identify and execute corporate citizenship initiatives. Various civil societies work with CII to instigate and incorporate reliable development opportunities across industries and sectors. Catering across Education, Diversity and Inclusion, Healthcare, Livelihood, Women's Empowerment, Skill Development, Resource Management and other industries, CII is a key player in progressive national growth. As industries respond to technological advancements with digital adoption, there is an immense alteration happening in the employment landscape of India and the world. The theme of "Re-engineering Education and Skilling - Building for the Future of Work" elevates the pivotal focus of modernization in India and the world. In the coming years of 2022 and beyond, CII will deploy strategies to harness evolving economic trends for cumulative development. This includes creating new employment, improving access to energy and security, and sustainable environmental initiatives and reformative policies. Having 68 offices globally, along with 9 Centres of Excellence in India, 11 overseas offices in China, Australia, France, Germany, Egypt, Singapore, Indonesia, UAE, South Africa, the USA, and the UK, and 394 partner organizations across 133 countries working on similar initiatives, CII is a bedrock of sustainable development for the Indian and international business community.

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. 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 to AIU.

The United Nations Development Program

UNDP (The United Nations Development Programme) operates across 170+ countries and regions with a mission to eradicate poverty and reduce inequalities and exclusion. UNDP nurtures development policies, leadership skills, institutional capabilities, and partnerships globally. Powering countries with plans and resources to build sustainable development goals, UNDP has been functioning in India from 1951 onwards. UNDP has since extended its efforts towards areas of human development including poverty eradication, sustainable energy measures, environmental management, and democratic governance. Aligned to national priorities, UNDP works closely with governments to help them make a range of schemes and strategies that are evaluated annually.

All India Council for Technical Education (AICTE)

Established in 1945, AICTE emerged from the CABE recommendations to control, stimulate, and coordinate the means for industrial and educational development in the country. AICTE started off with programmes in engineering and technology, eventually growing into a technical education powerhouse with numerous colleges

and polytechnic institutes. The growth of technical education in India was responsible for the expansion of AICTE into a premier entity. Stemming from reform policies during the 1980s to recalibrating Independent India with the focus on technical education and development, AICTE was a key player in introducing the participation of private and public sector for technical education. As self-financing studies gained momentum, Engineering Undergraduates and Diploma Institutes sprung up in various corners of the country. The council was responsible for stimulating the growth of the technical education sector in India since its inception. By providing access to technical education for millions of candidates across India, the goal is to sustain technical education, skills, and competencies by supplying resources, techniques and means for sustainable growth across various technical industries and roles.

Additional Skill Acquisition Programme (ASAP)

Initiated by the Government of Kerala, the Additional Skill Acquisition Programme (ASAP) aims to tackle the rising unemployment rates across Kerala and neighboring regions. ASAP equips candidates with pertinent skills across IT, Communication, Leadership, and other selected industry areas and fields. With state-of-the-art training facilities spread across various regions of Kerala, ASAP designs and deploys skilling modules for varying competencies and student groups. ASAP has successfully incorporated numerous training and skilling initiatives that empower candidates with industry knowledge and academic linkages to pursue rewarding career prospects. Working across 16 sectors and partnering with 1477+ institutions, ASAP offers 67 intensive skill courses. With over 121 Skill Development Centres across Kerala, ASAP has catered to more than 250,000+ students connecting Higher Secondary Schools, Advanced Skill Development Centres, Arts & Science Colleges, 45 Polytechnic colleges, 66 Engineering colleges, and 16 Community Skill Parks for a diverse range of skilling initiatives. Working at par with the evolving employability trends, ASAP harnesses the vast talent pool of youth to strategically align talent supply with a growing demand for skilled professionals.

Acknowledgements



This report is a combination of an assessment of **3 lakh** candidates across India, who appeared for the Wheebox National Employability Test (WNET), and **150** corporates across **15+** industries who participated in the India Hiring Intent survey

India Skills Report 2022

The 9th edition of the India Skills Report, ISR 2022, explores the Re-engineering of Education and Skilling - Building for the Future of Work. A cumulative insight into the talent demand and supply across the employment landscape provides a concrete basis to the changing employability trends and industry forecasts. This year's edition covers the results of the WNET test undertaken by **3 lakh** candidates nationwide to understand the talent landscape of India. By decoding the future of work, the pattern of hiring across **150 corporates** in numerous

job roles across **15+** industries is validated for exclusive demand trends. The rise of new technologies and pertinent job opportunities are expected to reshape the skilling and education landscape across the world. The report covers an in-depth study on how future workplaces are indoctrinating a new wave of professional aptitude required across industries and domains. With an informed strategy to analyze employability data and incorporate the best practices, ISR 2022 will bridge the gap between current employable talent and rapidly evolving expectations in today's economy. The report will project various education and skilling initiatives that are pivotal to retain India's position as a vibrant, competitive, and futuristic venue for modernization.

Acknowledgement

The Ninth Edition of India Skills Report, ISR 2022, combines the most intuitive intelligence pertaining to the nationwide talent landscape. We express our gratitude to every individual and entity responsible for the success of this year's report. Our heartfelt appreciation of businesses, government, and academia involved in the pursuit of this year's study is immense. We are thankful for the views shared by all people at the forefront of

modernization and development. This year's report is an immediate successor to the drastic measures taken during the COVID-19 pandemic, and aims to re-engineer the path forward for employment and employability in 2022 and beyond. We have assessed the education and skilling that is building the future of work for a new and revitalised India. This report is gathered from an assessment of **3 lakh** candidates across India who took part in the WNET, and consists of a report from the India Hiring Intent Survey covering **150** corporates spanning over **15+** industries and sectors, to share their forecast of the year. Our knowledge partner Taggd has been the driving force behind collating a comprehensive hiring outlook for early career professionals. We acknowledge the immense effort of the individuals behind the success of this year's report and this joint initiative. We extend a heartfelt thanks for the participating education institutes and their heads, who offered access to the vast youth talent pool of India. This initiative would have been incomplete without their support and participation. We also express our gratitude to the CII, the National Committee on Skills Development and Livelihood, and CII office bearers across the country who supported us at every juncture by encouraging the Hiring Intent Survey and WNET. Their invaluable contribution is the force behind enticing candidates and corporates across India to take part in this year's study. We thank ASAP Kerala for their tireless efforts in taking skilling initiatives throughout the state of Kerala and their support in helping us reach diverse pockets of the youth. We express a warm thanks to all the corporates, students, professionals, and partners in making ISR 2022 another great milestone for the employability forecast of India. We are proud to have partnered with you all on a pivotal cause that will dictate the direction India takes in building for the future of work through employment opportunities, education, and skilling. We expect that you will find value in this year's report and we recognise that your continued support will advocate for us in the years ahead.

Catalysts of Skilling in the Digital Age



Over the past few decades, the importance of technology in our lives has witnessed a steady climb. This is especially relevant to the modern industries that are increasingly becoming the beneficiary of digital transformation. Digital technology expands the availability of information to people and uncovers new ways to increase productivity and efficiency. For that reason alone, modern day professionals are expected to be familiar with technological skills and remote collaboration practices. For instance, a report by the IMF stated that 65% of the global GDP is forecasted to be digitized by the year 2022. Additionally, 48.16% of the world population uses a smartphone, which means that there are 3.80 billion smartphone users as of 2021. Access to the Internet and smart technology opens up more work opportunities for students and working professionals. The widespread use of the Internet has enabled part-time work, creative content sharing, skilling opportunities, improved collaboration, and increased public awareness to name a few benefits. Paired with the rise of a hybrid work culture in many parts of the nation, the digital age is setting India up for a big boom in the coming years. With over 400 million working professionals in India, the adoption of the best technological practices nationwide is a by-product of consistent efforts from individuals, the government, and the public and private sectors. For a working professional to meet the evolving industry's expectations, a set of emerging skills and job roles should

be the prime focus in education and skilling initiatives across the nation.

Although technology-driven infrastructure is the foundation of modern enterprises and factories, the core catalyst of digital age skilling is a human-first approach. Today's companies expect individual ownership over a hierarchy culture. That's because the adoption of technologies and tools available can function the best when everybody in the organization is onboard. The main objective of modernizing industries through technology is to create a more inclusive, self-sufficient workplace that reduces the burden on employees and boosts overall productivity. That's where the creative potential and out-of-the-box thinking is the crux of modern skilling initiatives. While learning the latest software and AI is essential in many disciplines, the prime focus should be on the value-added contribution of employees and their unique skill sets. The human-centric skills required to excel in the digital age vary from one corporation to the other, and from one job role to the other. However, there are certain disciplines that act as catalysts to skilling in the digital age. Technology is reinventing the way certain job roles are interpreted, how professionals work and how businesses operate. There is a compulsiveness to upskill populations at large, to build for the future of work in 2022 and beyond. The ISR 2022 edition has combined in-depth insights to forecast industry hiring trends and

the employability patterns of Indian students, aspirants, and workers. As the focus of this year's study, "Re-engineering Education and Skilling - Building for the Future of Work" will uncover trends influencing the demand and supply of talent in India. Armed with the knowledge of this in-depth study, the ISR report will provide intelligence for decision-makers, professionals, aspirants, and policies to make the most of employment opportunities and employability trends. The report will highlight modernization and skills that are rapidly evolving with the talent marketplace, prompting a fresh outlook on initiatives taken to bridge the gap between talent and opportunity in India. The report features a combination of the assessment of **3 lakh** candidates nationwide who appeared for the WNET, and **150** corporates spanning **15+** industry sectors who took part in the India Hiring Intent Survey.

Over recent years, automation has created more jobs than it has destroyed. Of the 800,000 or so new jobs created between 1990 and 2013, some 200,000 can probably be attributed solely to automation. And in future years, automation is likely to continue to create more jobs than it destroys. It also looks likely that transformation in occupational roles and the shifting of jobs both within and between sectors will accelerate.

Creativity and social intelligence in particular are likely to be essential skills for most new jobs created between now and 2030. Because these skills give humans a clear advantage over machines and software, they also offer protection against developments in automation, making jobs 'future-proof'. In future, there will also be greater demand for individuals with excellent mathematical skills and expertise in ICT. Job prospects and protection against automation will be even better for individuals who can combine mathematical and technological skills with creativity and/or social intelligence.

Some new jobs will be created in areas where total job numbers are relatively low, but where particular competencies will be required. The future will provide good employment prospects for employees with excellent knowledge in the areas of education and training, health, and communications. Although this knowledge may not be crucial to most newly-created jobs in future, it nevertheless offers protection against automation in these 'niche occupations'.

Key Skills for Digital Age



Foreword

Re-engineering Education and Skilling Building for the Future of Work

India Skills Report (ISR) has been a pioneering effort of Wheebox, a global leader in online remote proctored assessment. India Skills Report (ISR) 2022 which is the 9th Annual Edition of the Company, has “Reengineering Education and Skilling – Building for Future of Work “as its theme. ISR 2022 aims to give insights on the skill gaps that exist in the employable population across India specifically when the demand for early career professionals and supply of talent is changing dramatically due to innovation in technology, job roles are changing rapidly.

The report provides a holistic view of skill and talent landscape of early professionals in the country, capturing skill levels of the supply side and needs of the demand side in the talent supply chain. Reaching over 300,000 students and over 150 corporates across 15 industries, ISR 2022 has highlighted the readiness of our present talent pool for new-age jobs and the skills that employers are today seeking in prospective employees.

The report compares the two sides to seek an answer to how the employability landscape of the nation has changed in the new normal. It throws light on rebuilding education and shows the correlation between skills and livelihood. The impact of globalization, demographics, policies and economic activity have been highlighted to furnish the evolving demands of India’s job landscape.



Mr. Rajesh Aggarwal

Secretary, Ministry of Skill Development and Entrepreneurship

Adoption of technology by millennials, will be creating a whole new approach for upskilling students for the future of work. With specific insights into varying factors like demography, gender representation in the workforce, hiring intent and youth employability, India Skills Report provides an informed outlook on the talent demand for early career professionals and supply in the nation post-COVID. This report will undoubtedly be of great interest and use to various stakeholders in the skilling ecosystem in India - be it the Central or State Governments, students, parents, corporations, training institutes, policymakers, and academia etc. I deeply appreciate this effort by the entire Wheebox Team and other Organizations associated with this Project.

Preface

The Crack Code of Building Employability across the Education Ecosystem

in India. Insights generated from the last 8 years of India Skills Report for Stakeholders to build employable talent in India. Globalization is at peak and new technologies surfacing at every level are reinventing the skilling ecosystem across geographies. During the COVID-19 pandemic, we saw that numerous enterprises took to digital workplace environments to sustain their business operations.

This is an offshoot of a trend that has been revolutionizing the way industries work since the internet took flight in the 1990's. The Proliferation of the Internet has made it simpler to identify the skill gap and suggest the relevant recommended career path for better career choices, and eventually attribute it to better success at jobs. We find ourselves at a defining moment - the decisions and choices we make today will determine the course of entire generations' lives and livelihoods. We have the tools at our disposal. The bounty of technological innovation that defines our current era can be leveraged to unleash human skill potential.

In fact, the pandemic has shown us that remote learning, remote work, and remote evaluation are going to become the new normal for many sectors across IT, Business Consultancy, Financial Services, and very specifically one industry leading the game, the Education Industry. The academic continuity of higher educational institutions can be maintained even behind the closed college doors.

With new forms of work such as hybrid models, employability is heavily reliant on upskilling to meet the demands of a knowledge-oriented economy. Industrialists and entrepreneurs are eagerly contributing to the development of new-age skills. The share of technology in every industry and sector is only increasing by the day. The truth is that technology makes life easier by bringing people of varying skill sets together.

The Crack Code of Building Employability across the Education Ecosystem in India. The insights have been generated from millions of candidates who took the National Employability Test and got employed in the past 8 years.



Mr. Nirmal Singh
Founder and CEO, Wheebox

Over the previous 8 editions of the India Skills Report, developing & enhancing human skills and capabilities through education, learning, and meaningful work are the key drivers of economic success and progress of the nation. We conducted a detailed study for tracking the career path undertaken and possible skill gap identification for over 10+ profiles covering over 2.3 million students who took the assessment and found that there is a direct correlation between skills and employability. Our team tracked the sample data from all editions to derive a direct correlation between skill competency and employability in industry.

Those Students who scored better in Learning Agility, Business Communication, and Emotional Intelligence grew to Managerial Positioning, twice as fast to those who performed well in Domain Knowledge and average soft skills. Likewise, students who have scored better in Business Communication tend to grow 1.5 times faster across Media, Entertainment, and Public-speaking Profiles as compared with the students who chose Tour/Travel as a preferred career after jobs.

Those students who ranked Higher on Critical Thinking and Numerical Ability in the National Employability Test grew faster in profiles such as Sr. Analyst and Big Data

Engineering roles. So, there exists a direct correlation to the fact that employability skills are the key for larger success for students' jobs.

The technology has enabled learning on-the-go for upskilling and getting a job ready by assessing core skill gaps. The good news is that many of the skills in demand can be learned with the right kind of dedication and guidance. Owing to the content creation that keeps most of us occupied with social media; creativity, originality, and initiative are the other sets of skills that can help aspirants achieve their career goals and most importantly, active learning & strategic learning are the skills that will help students and professionals catch up to a rapidly changing employability landscape.

For example, critical thinking and analytical skills compliment the growing demand for highly qualified data professionals who can interpret data and make life-changing decisions. Owing to the content creation that keeps most of us occupied on social media; creativity, originality, and initiative are other sets of skills that can help aspirants achieve their career goals. And most importantly, active learning and strategic learning are the skills that will help students and professionals catch up to a rapidly changing employability landscape.

The good news is that many of the skills in demand can be learned with the right kind of dedication and guidance. These skills can be honed, and the rise of e-learning has made personal development and skill enablement more accessible. On the World Youth Skills Day, 15th July 2021, Prime Minister Narendra Modi highlighted an initiative termed "Going Online as Leaders (GOAL)" as a prime focus to set India's employability landscape at par with the talent demand globally. This is a clear indication of the technical and vocational skills required to enable youth development. Through e-learning initiatives and online education, a vast majority of India's youth can benefit from modernization and skilling for the future. The trend of digital adoption and innovation has created a huge demand for technical skills such as Cloud Computing, Artificial Intelligence, Cyber Security, UI/UX Design, Graphic Design, Animation, Data Science, and Business Intelligence. The question is: Can India's skilling infrastructure leverage changing employability trends to maximize the "youth bulge" of India's demographics in 2022 and beyond?

With innovation at scale and improved access to internet services, the demographic of India will surely benefit from private and public skilling initiatives in the coming months and years. We have already witnessed that soft skill development, networking, coding, software computing, cloud development, economic analysts, chartered

accountancy, and public relations skills have gained prominence in a vast segment of urban and rural India. No longer is young India torn between the archaic "science stream or commerce stream" question that bewildered the youth in the past. The introduction of new hybrid courses and top-tier university partnerships have made knowledge acquisition more specialized and skill-driven. The focus is more on in-depth specialization of a field – be it pharmaceuticals, medicine, critical thinking, public relations, technology, or entrepreneurship. Combined with digital tools and e-learning, India's students and working professionals are offered a chance to reinvent the future of this nation. Digital adoption for excellence is accelerating and India has a vast demographic that can salvage the benefits of this trend and build a self-reliant skilled global talent capital.

India Skill Report 2022 by Wheebox, in partnership with Taggd, AICTE, MSDE, CII, AIU, UNDP, Sunstone Eduversity and ASAP Kerala, is a full-fledged report about the future of work, education, and skilling to match the talent demand and supply in a growing India.

By understanding the trends in decision making across industries, we uncover new opportunities for aspirants. By exploring the results of the WNET, conducted for 3 lakh students across the country, we clearly define the employability landscape of India. Some of the key skill availability assessed were Business Communication, Critical Thinking, and Numerical Reasoning. ISR 2022 delves into the youth employability derived from various factors such as the field of study, demographics, gender participation, work preferences, salary expectations, and access to resources. Through the numerous education and skilling initiatives, the report covers sustainable infrastructure to guide the vast and able talent pool of India with the emergence of new trends. The report consolidates the demand-side story with incisive insights of the hiring trends and hiring intent of industry leaders. The India Hiring Intent Survey (IHIS) - Early career edition aims to unlock the in-demand jobs available for youth, covering 150 companies across 15+ industries.

Spotlight Partner



Ministry of Skill Development and Entrepreneurship (MSDE)

The Ministry is responsible for co-ordination of all Skill Development efforts across the country, removal of disconnect between demand and supply of skilled manpower, building the vocational and technical training framework, skill up-gradation, building of new skills and innovative thinking not only for existing jobs but also jobs that are to be created. The Ministry aims to skill on a large scale with speed and high standards in order to achieve its vision of a 'Skilled India'.

It is aided in these initiatives by its functional arms – Directorate General of Training (DGT), National Skill Development Agency (NSDA), National Council for Vocational Education and Training (NCVET), National Skill Development Corporation (NSDC), National Skill Development Fund (NSDF) and 38 Sector Skill Councils (SSCs) as well as 33 National Skill Training Institutes (NSTIs/NSTI(w)), about 15000 Industrial Training Institutes (ITIs) under DGT and 187 training partners registered with NSDC. The Ministry also intends to work with the existing network of Skill Development centers, universities and other alliances in the field. Further, collaborations with relevant Central Ministries, State governments, international organizations, industry and NGOs have been initiated for multi-level engagement and more impactful implementation of Skill Development efforts.

NSDC

NSDC was set up by the Ministry of Finance as a Public Private Partnership (PPP) model. The Government of India through the Ministry of Skill Development & Entrepreneurship (MSDE) and private sector partnership.

Narendra Modi

Hon'ble Prime Minister of India

“ We need to provide a boost to entrepreneurship to India. In the coming years, India will be biggest supplier of workforce to the world. ”

NSDC aims to promote skill development by catalyzing creation of large, quality and for-profit vocational institutions. Further, the organization provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train the trainer academies either directly or through partnerships. NSDC acts as a catalyst in skill development by providing funding to enterprises, companies and organizations that provide skill training. It also develops appropriate models to enhance, support and coordinate private sector initiatives. The differentiated focus on 37 sectors under NSDC's purview and its understanding of their viability will make every sector attractive to private investment.

Initiatives from MSDE FOR Building Education Skilling Ecosystem in Country

PMKVY

Under the leadership of Hon'ble Prime Minister Mr. Narendra Modi , Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill

Development & Entrepreneurship (MSDE) implemented by National Skill Development Corporation. The objective of this Skill Certification Scheme is to enable a large number of Indian youths to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL).

More than 13 Crore candidates enrolled and trained under the scheme on 10th Nov 2021, it is one of the largest countrywide Skill and certification initiatives for upskilling to make the youth employable in the country.

The PMKVY scheme has also assessed over 1.1 Crore candidates and certified over 1 crore candidates for making the youth industry ready.

Pradhan Mantri Kaushal Kendra

Under the leadership of Hon'ble Prime Minister, Narendra Modi, for encouraging Vocational training needs to be made aspirational to transform India into the skill capital of the world. In line with the same, the Ministry of Skill Development and Entrepreneurship (MSDE) intends to establish visible and aspirational Model Training Centres (MTCs) in every district of the country. NSDC is the implementation agency for the project.

The model training centers envisage to:

- Create benchmark institutions that demonstrate aspirational value for competency-based skill development training.
- Focus on elements of quality, sustainability and Connection with stakeholders in skills delivery process.
- Transform from a Mandate-driven footloose model to a sustainable institutional model.

These training centres will be state-of-the-art Model Training Centres, called as Pradhan Mantri Kaushal Kendra (PMKK).

Jan Shikshan Sansthan (JSS)

The Scheme of Jan Shikshan Sansthan (JSS), formerly known as Shramik Vidyapeeth, has been implemented through a network of NGOs in the country since March 1967. The first Shramik Vidyapeeth was established in Mumbai [Worli] and was commissioned by Bombay City Social Council Education Committee, a voluntary organization engaged in the field of Adult Education. After the success of the project, the Govt. of India developed a scheme for setting up a network of such institutions in the country in a phased manner.

With the transformation in the economic and social setup over the years, the role and scope of these polyvalent educational institutions have widened manifold. In the changed scenario, the focus of Shramik Vidyapeeth (SVP) was shifted from industrial workers in urban areas to the non-literates, neo-literates, unskilled and unemployed youth particularly from SC/ST/OBC/Minority/Divyang/Women throughout the country especially to underprivileged people in the rural areas. The SVPs were accordingly renamed as Jan Shikshan Sansthan (JSS) w.e.f. year 2000.

Key Numbers: At present 248 Jan Shikshan Sansthans in 27 States and 2 UTs are active out of which 17 JSSs are not functional. A decision of setting up of 83 new Jan Shikshan Sansthans as on Nov 10th 2021

India International Skill Centre (IISC) Network

India is a young nation with ~65% of its population below the age of 35 years. This demographic dividend presents an opportunity that can be leveraged to create a high-quality skilled workforce for the rest of the world, especially those nations which have an ageing or declining national population.

To cater to the global workforce demand, NSDC actively pursues global partnerships with governments and businesses with the aim of:

- Promoting global mobility,
- Strengthening the Indian skilling ecosystem, and
- Sharing of knowledge with other developing & developed economies.

Paired with the growing infrastructural capacity and much needed efforts in honing India's youth talent, MSDE is determined to continue the upward trend of equipping youth with necessary knowledge, skills and awareness to tackle industry demands.

Wheebox and MSDE partnered for assessing the employability for four sector skills councils in NSDC in the 9th Edition of India Skills Report 2022. The continuous effort to upskill the nation's youth has gathered some positive results, but there is a long way to go in reengineering education and skilling to build for the future of work. This year's report will shed light on how we can harness the youth talent of India and rise up to the digital acceleration across industrialization 4.0.

From the Desk of the Chairman, CII National Committee on Skill Development and Livelihood



Mr. Sanjay C Kirloskar

**Chairman, CII National Committee on
Skill Development & Livelihood &
Chairman & Managing Director,
Kirloskar Brothers Ltd**

“The 9th edition of India Skills Report 2022 focuses on Re-engineering education and skilling to build for the future of work. Embarking on a journey with Wheebox on their mission to measure the world’s talent has continuously returned favourable results since the beginning. This year, the relentless pursuit of finding new ways to nurture the skilling ecosystem and decode the talent landscape in India has proved rewarding indeed.

With practical insights on the evolving job market and a holistic view of India’s youth employability, the report provides crucial data to steer through the coming years in emergence as the nation to house the world’s largest youth capital. Coupled with various public-private partnerships, like AIU, AICTE and MSDE and others, the WNET, a test for the talent supply forecast of 2021, has reached over 300,000 candidates. Producing fresh insights into the success of India’s widespread skilling initiatives, the ISR 2022 edition also covers a corporate survey with 150+ companies participating across 15+ industries. By uncovering the hiring intent across India incorporated, the survey sheds light on the demand for early career professionals in various fields. Intended to nurture young talent with the necessary capabilities to tackle a modern workplace, the evidence produced in this report is another earmarking discovery of the nation’s workforce potential, combined with a practical approach to bridge the gap between demand and supply of talent in the nation.

As the effects of the pandemic are slowly wearing off, the lessons learnt will last a lifetime. However, the immediate actions to be taken in order to revive and accelerate economic growth remain a top priority for all stakeholders.

Deciphering various aspects like demographics, educational domains, workplace preferences, access to resources and awareness, the WNET test has consolidated a perceptive indication of India’s path to continued sustainable skilling in 2022.

We are proud to have contributed with vigour and enthusiasm in responding to the needs of India’s youth and industry. As the demand for talent across various domains reignites the corporate engines, stakeholders are presented with a front row view of the industrial forecasts for human capital and talent acquisition in the new year.

In an attempt to measure the world’s talent, the ISR 2022 initiative is congruent in its pursuit of leveraging human capital for the success of the economy and society at large. As we enter a new year with new hopes, we must take the country’s youth forward and this collective responsibility is reflected in the pragmatic initiatives taken by Wheebox and an evergreen association with CII. Wishing immense pleasure to the readers of this year’s report who are key stakeholders of the vision to take India forward, together, one step at a time. A heartfelt vote of appreciation goes out to all the people and organizations behind this report, who with their tireless efforts, make it easier to understand the complexity of continuous change with carefully curated and simplified insights for the year 2022.

From the Desk of the AICTE Chairman

Hearty Congratulations to the Wheebox team for launching the Ninth Edition of India Skills Report 2022. The report provides the key talent and employability insights for building a talent landscape for the future of work. The impact of the changing job landscape across talent demand has been analyzed and gives a very detailed insight of the true talent potential of the country. The changing technological landscape coupled with conducive government initiatives is facilitating the growth of the economy. Concurrently, the workforce landscape is also changing as per the evolving industry requirements.

The Ninth edition of the report provides insights into the present state and future expectations of the supply and demand side of the talent value chain. On one hand, the employability of over 300,000 students is measured to understand their readiness for the future jobs and on the other hand, the hiring intent of the 150+ employers and corporations is analyzed. The amalgamation of the two perspectives gives a complete picture and emphasizes on the most prominent gaps in the ecosystem, indicating the possible way forward. We hope the report gives valuable information and actionable insights for taking the skilling ecosystem to newer heights and helps parents, students, corporations, academia, training agencies, and policymakers to take effective steps in skilling and makes India a talent capital of the world.

I would like to congratulate the Wheebox team for publishing this comprehensive report for true talent potential for graduates joining the workforce and employability trend.



Prof Anil D. Sahasrabudhe
Chairman, AICTE

The report also covers the key initiatives undertaken by AICTE for building the education skills ecosystem in the country. I am sure all institutions accredited by AICTE will use these insights to build employability and help build India as the Talent Capital of the World.

Message from Academia Partner

Bridging the Employability Skill Gap

According to the Eighth Edition of the India Skills Report 2021, the unemployability rate amongst Indian youth stands at 54.1% as opposed to 53.79% last year. However, in situations where there are abundant job opportunities, there is a dearth of graduates with industry-relevant skills which also results in a rising trend of unemployment. This can be attributed to a widening skill gap in the Indian ecosystem of higher education.

In order to survive, businesses require employees who exhibit important behavioural skill sets to enhance the work culture as employees communicate better within teams. These behavioural skill sets include critical thinking, effective communication, ownership, agility, and a problem-solving approach.

Additionally, top companies in India are adopting innovative recruitment strategies focused on specific soft skills. These skills allow organizations to effectively and efficiently marry together technical skills and knowledge without being hampered by interpersonal issues. Some of these key soft skills include cooperation, leadership, proactiveness, and empathy.

However, there is a lack of institutional guidance in educating students on these important parameters.

Most institutes struggle to keep up with the dynamic requirements of the industry, failing which they continue to teach students concepts that are no longer relevant to the industry needs in current times. The need of the hour is to recognise the importance of upskilling and this can be achieved by updating course content and curriculum as per industry needs. Furthermore, this will prepare students for newer job roles, especially in the aftermath of the Covid crisis.

In the landscape of the Covid crisis, there has been an escalation in the demand for the hybridization of education. Thus, there is a striking need for the assimilation of hybrid learning into the traditional moulds of the Indian education system.

It is vital for institutes to recognise the need for industry-relevant, quality education. This refers to tracking and aligning learning outcomes to ensure a successful career



Piyush Nangru
Co-founder & COO
Sunstone Eduversity

path for students. This can be achieved through a two-pronged approach:

- by creating a parallel system of education through the inclusion of hybrid modes of learning.
- by disrupting the existing system by introducing industry exposure, focusing on individual learning outcomes, honing critical soft skills, and inculcating employability competency.

Employing an application-based approach to learning, institutes can incorporate a technology-led approach that makes students well-versed with the digital landscape of learning. This can be achieved with the help of data-driven decisions, high impact elements such as learning systems, training & placements programs and tools to track every aspect of the students' journey to drive outcomes thereby emphasising on the overall student experience.

Additionally, customised training for different domains alongside remedial modules to clarify business concepts will propel students to be job-ready on the very first day of work.

There are 10 million students occupying the higher education space but 95% of these students don't have access to education that can help them build a well-rounded career. Focusing on holistic growth and development, it is imperative to equip students with the right skill set and knowledge, thus making them the perfect fit for every top recruiter out there.

From the Desk of Secretary General, AIU

It gives me immense pleasure to note that the 9th Edition of India Skill Report brought out by WHEEBOX in partnership with Association of Indian Universities, CII and other organizations is being released on December 09, 2021. The Report contains comprehensive and consolidated information on the employability status of the Engineering graduates of the country. The project which primarily aimed at mapping the employability status in terms of knowledge and skill acquisition of the Engineering graduates has expanded its reach to a large number of institutions. By projecting the status of employment readiness of young graduates the report brings forth many important information which will be useful for policy planners for designing appropriate policies, the industrial sector for hiring the best talent and the young graduates exploring the job market to begin their professional journey. I congratulate the team of WHEEBOX and other partnering organizations for successfully bringing out the ISR.



Dr. (Mrs) Pankaj Mittal
**Secretary General, Association of
Indian Universities**

The India Skill Report has been proved to be one of the most credible report projecting the employment readiness of the young graduates and tracks the employability patterns that are shaping the demand by reaching out to employers across industry verticals. It provides vital inputs to support and strengthen the efforts made by various stakeholders including the Government to build up the pool of employable resources for supporting and strengthening the economy.

State Partner



Additional Skill Acquisition Programme (ASAP) Kerala

Pioneered by the Government of Kerala, the Additional Skill Acquisition Programme (ASAP) is a skilling initiative that focuses on imparting industry relevant skills to the youth. Originating in 2012, ASAP initially spearheaded projects to improve employability among school students, eventually growing in size and volume to expand efforts across numerous verticals.

ASAP - Kerala has 1510 partner institutions, 99 engineering colleges and 45 polytechnics. It has established 16 Community Skill Parks and has trained 251,242 students since inception. In schools, ASAP delivered a specially curated programme called Foundation Module that comprised 100 hours of Communicative English, 80 hours of basic IT skills and 150 hours of industry relevant vocational and on-the-job training on a trade of choice. Certification for ASAP training programmes is provided through the National Council for Vocational Education and Training as well as the concerned industry. English assessment and certification acquired by candidates are through the British Council. ASAP Kerala is currently running 75 courses across 17 clusters through various modes. This is in line with the commitment of the Government of Kerala to transform the state into a knowledge economy and skill 50 lakh people and provide jobs to 20 lakhs over the next 5 years.

Creating a Skilling Ecosystem for the Future of Kerala

The skill training offered by ASAP includes mandatory internship opportunities. The programmes are selected based on the recommendations of the Business Advisory Committees which are sector wise committees of The skill training offered by ASAP includes mandatory internship opportunities. The programmes are selected based on the recommendations of the Business Advisory Committees which are sector wise committees of think, analyse, learn and quickly respond to the challenges of



Dr. R. Bindu

Hon. Minister for Higher Education and Social Justice Department

“ The objective of the Higher Education Department is to equip the youth in areas of their interest to be productive in a changing economy. ASAP Kerala brings industry relevant skill programmes which can enrich their skills and enable them to find decent employment. The India Skill Report holds a mirror to the expectations of the industry and the skill gaps in students. IT can therefore act as a knowledge tool that facilitates policy decisions in the education sector. The partnership of ASAP Kerala in the India Skill Report 2022 is part of the Government Commitment to transform the State to a knowledge based economy. ”

an economy disrupted by Industrial revolution 4.0, technologies and continuous innovation, industrial participation and entrepreneurship development. The mandatory internship component ensures that by the time students complete their training they will have exposure to the industrial environment.

ASAP Kerala has set up 121 Skill Development Centers in various Government Schools and Arts and Science colleges, as well as 111 in various engineering colleges and Government Polytechnic colleges in the state of Kerala. Each Skill Development Centre consists of computer labs and digitally equipped classrooms with internet connectivity. There is a facility for streaming of lectures as well.

ASAP's Engagement Model

The state-run initiative has succeeded at improving the overall youth employability of Kerala in the shortest duration since its inception in 2012. This is owing to an engagement model that is tailored for various educational and skilling environments and needs of students.

Community Colleges

ASAP Kerala offers a 3-year credit based D. Voc programme approved by AICTE through 5 Community Colleges located in Government polytechnics with multiple entry and exit points. Classes are held from 2 to 7 pm. The programme is devised such that 50% of the time is spent in the relevant industry under mentors.

Industry on Campus

With the motto of 'Earn while you learn', ASAP Kerala has initiated the Industry on Campus initiative in Government polytechnic colleges in the state. The initiative is aimed at encouraging industry presence in the campus in the creation of products or testing so that the students gain industrial experience along with their academic activities.

ASAP Cells

ASAP Kerala has established ASAP Cells in colleges as an alumni led forum to debate, learn and gain exposure to the global trends in economy and skill sets. The Cells have taken the initiative to get the Wheebox survey done by the students.

Community Skilling Initiatives

ASAP Kerala undertakes community skilling through two major interventions, Community Skill Parks and Community Specific Training through LSGDs, Government and Non-Government agencies.

Community Skill Parks (CSPs) are multi-skill development hubs for all ages and social groups. CSPs operate on a hub and spoke model and connect with academic institutions, vocational training institutions and the local industry to foster a skill development ecosystem. A total of 16 Community Skill Parks are operationalized by ASAP in various parts of the State. In the coming year, ASAP plans to set up facilities such as AR/VR labs and Drone labs in its CSPs and offer advanced training programmes through them.

ASAP has taken up dedicated skill training programmes to address the skill gap in specific sectors such as the hugely popular Craft Baker course for mothers of mentally challenged children and computer aided courses for the

hearing impaired. Many of them have since acquired placements and some have also become entrepreneurs. A programme named 'Vayanashala' has been launched recently for graduate rural women to be skilled in HR microtasks and connected to the gig economy for fulfilling the recruitment needs of corporates.

Other major initiatives of ASAP Kerala include courses in the National Qualifications Register, Nurses training, Multi-linguist Centers, Reboot Kerala Hackathon, State Internship Portal, the Professionals' Student Summit and various Digital Initiatives. By focusing the spotlight on crucial dynamics of the state's talent demand and supply, ASAP facilitates industry partnerships, governing bodies and effective skilling environments for students, professionals and the community at large.

Fun Fact: This year's result revealed that Kerala has the **3rd** highest youth employability with **64.2%** found highly employable. The state also features in the top 10 for available female employable resources.

Empowering Futuristic Solutions

ASAP is now an Awarding Body for 12 Skill Qualifications at the national level for implementing NSQF. Most of the courses belong to the category of high level futuristic vocational training programmes.

In 2020, ASAP started training nurses in English proficiency to seize the opportunities arising in the UK following BREXIT. The training programme comprises English language training and clinical training. The English language training is conducted in association with the British Council. The candidates who clear the IELTS will be offered placement opportunities in the UK under the agreement between Government of Kerala and NHS.

Multi-Linguistic Centers were launched by ASAP in 2019 to teach foreign languages with the help of Embassies of these countries. Currently foreign language training is offered in French, German, Japanese and English. In the context of the CoVID -19 pandemic, the training is provided online.

Reboot Kerala Hackathon (RKH) was organized by ASAP in the year 2020 to provide college students of the State an opportunity to find innovative solutions to some of the pressing problems faced by various Government Departments. RKH 2020 had 10 regional hackathons in which 1608 students participated.



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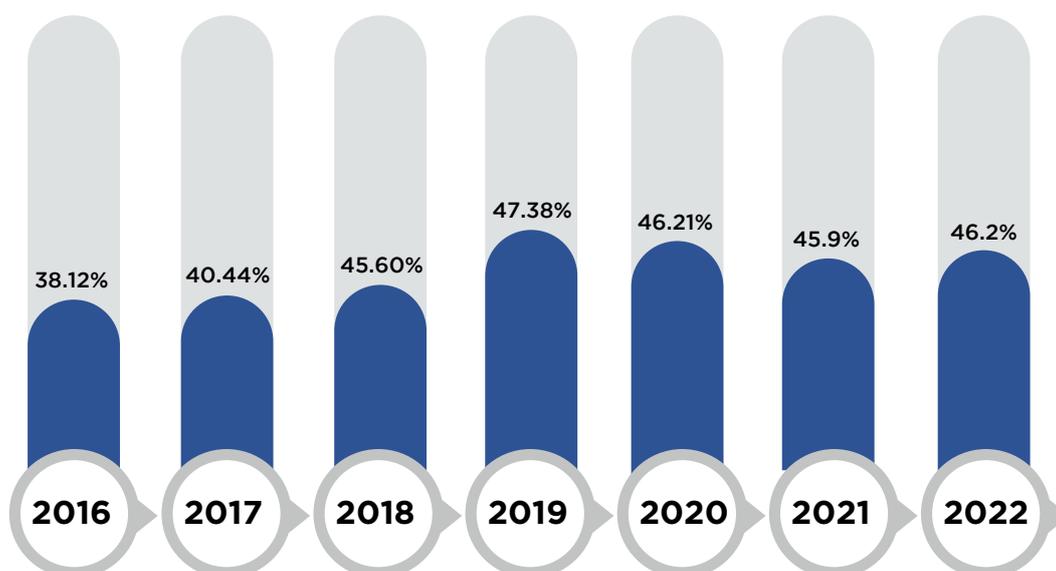
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THE JOURNEY OF
INDIA SKILLS REPORT

How Employability has Changed Over the Years?

2016 - 2022

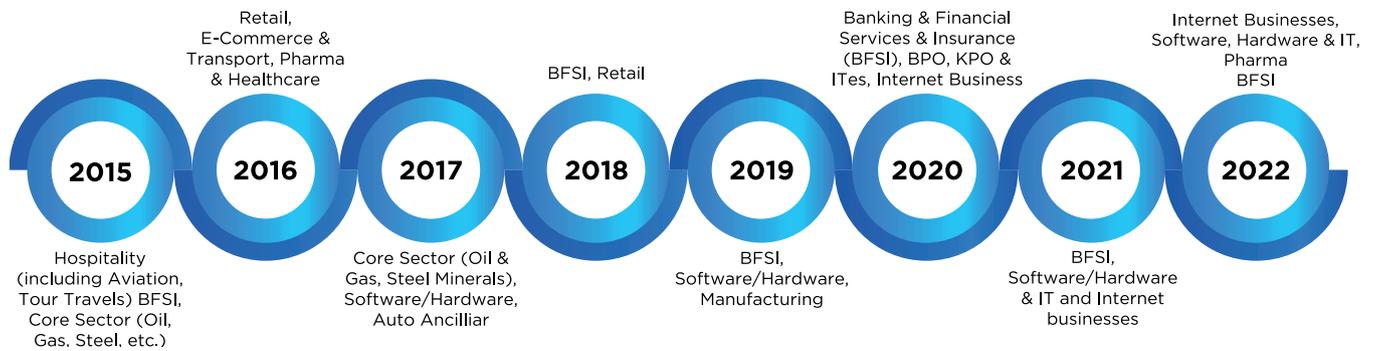


Which Domains Have More Employable Talent?

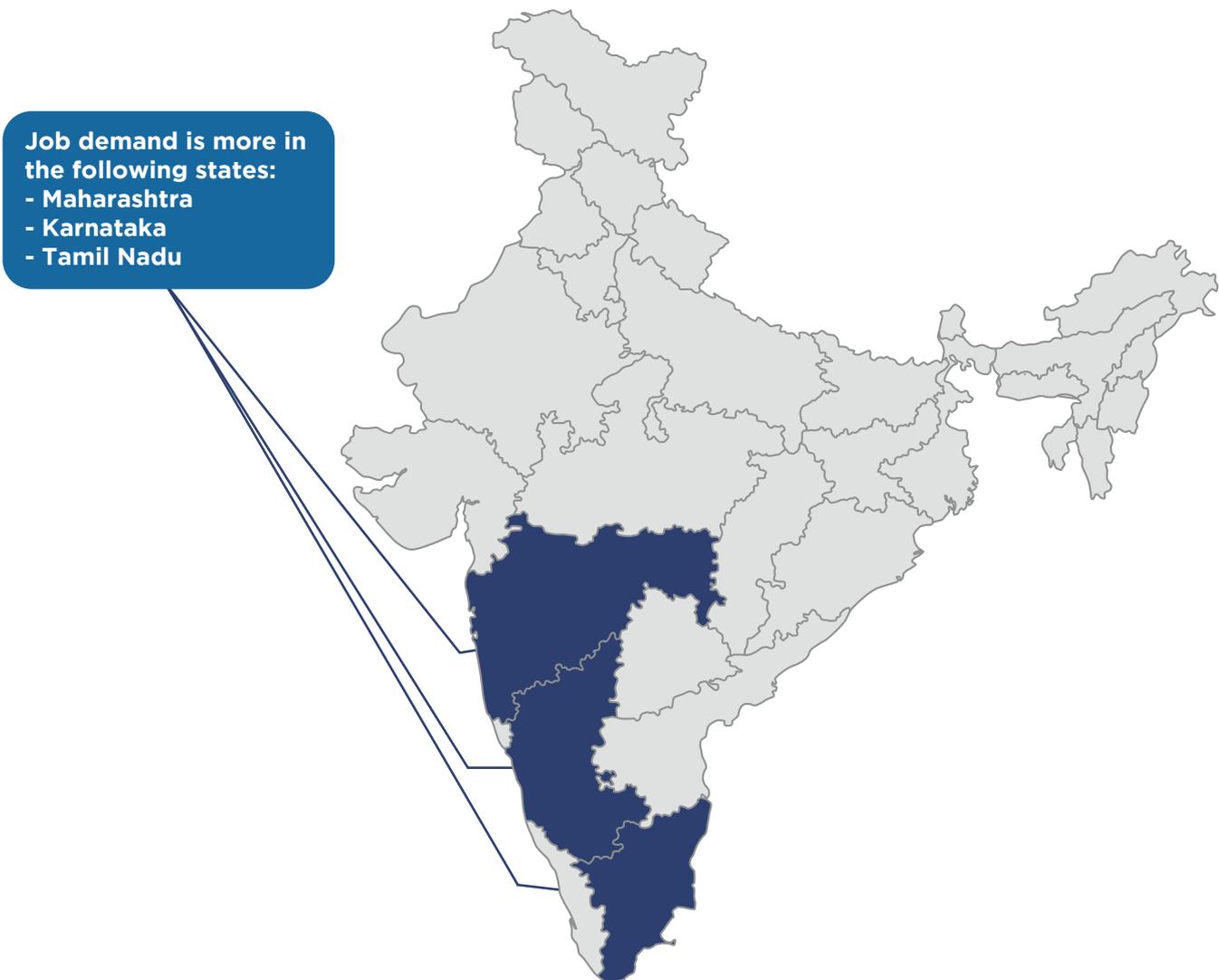
2016 - 2022



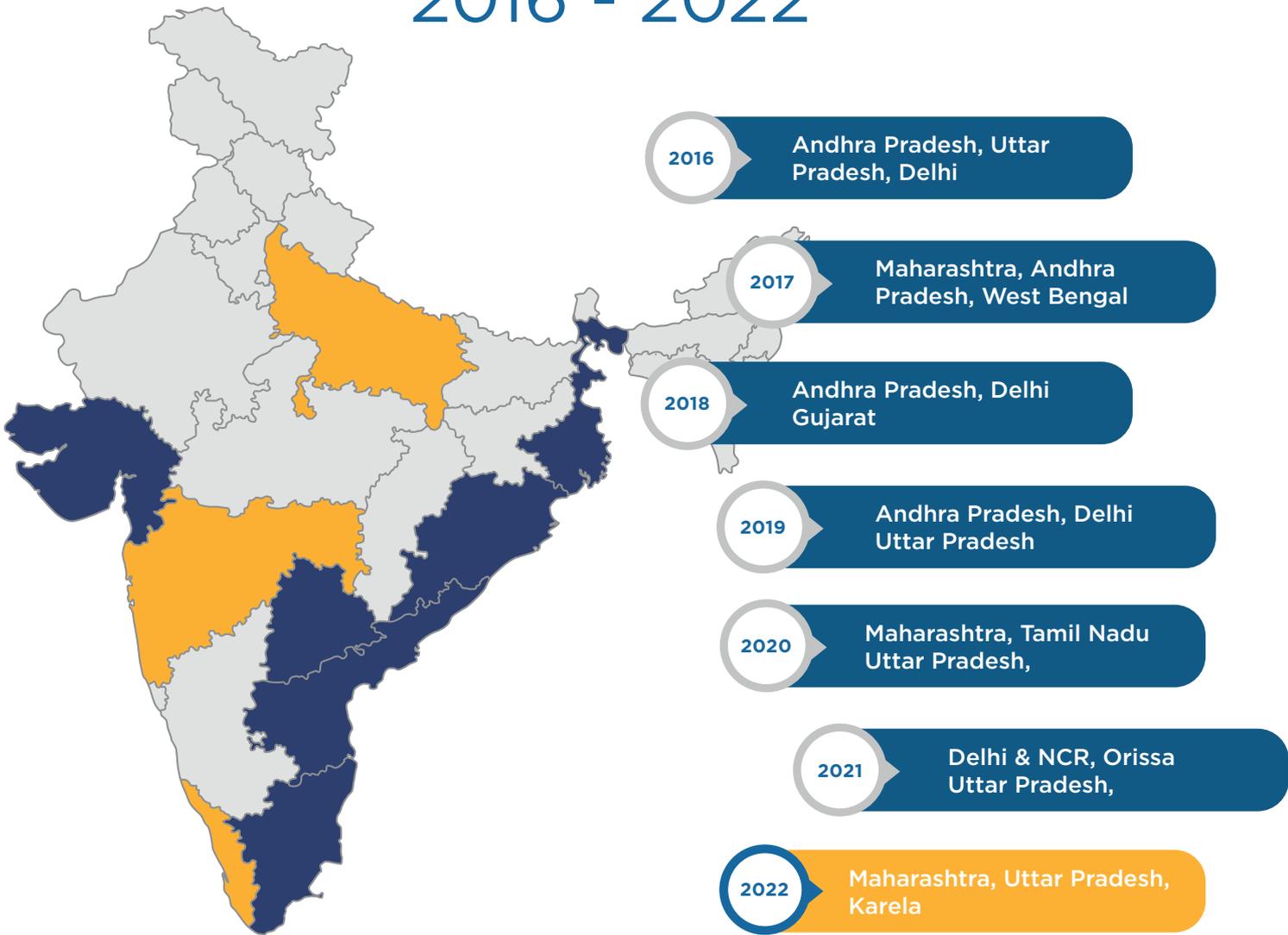
Which Sectors Have Hired The Most? Top Sectors 2016 - 2022



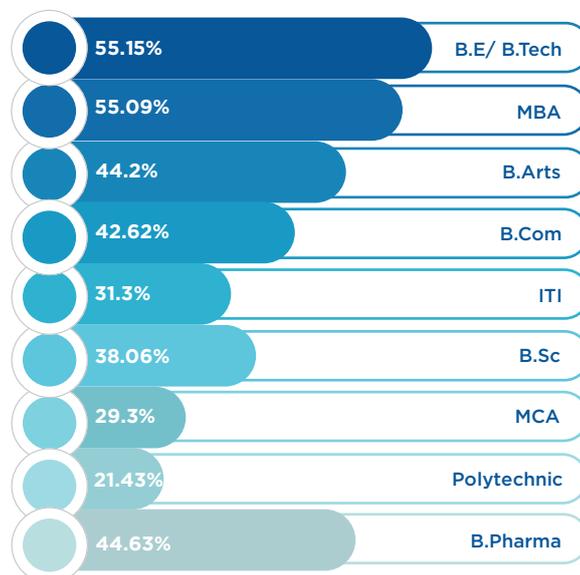
Which States Have The Maximum Hiring Activity?



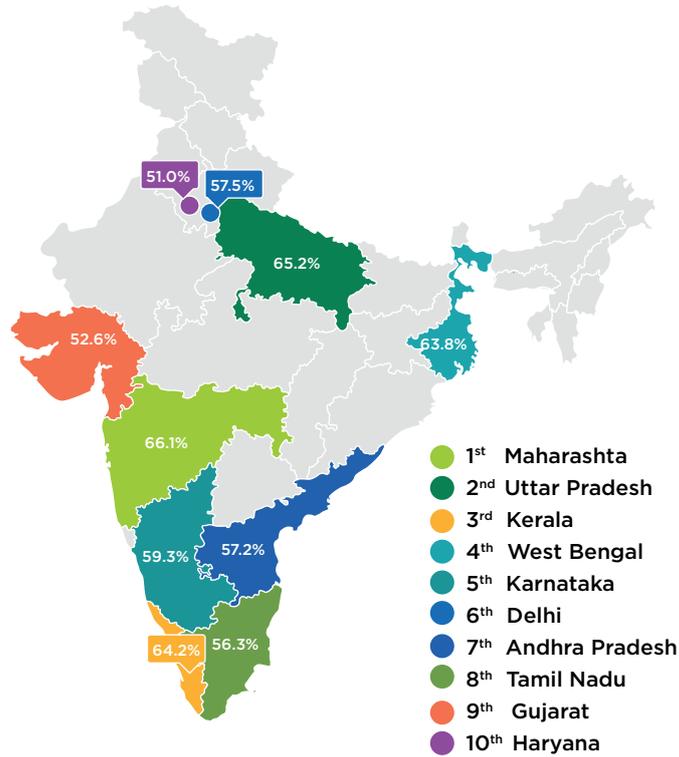
Which States With Maximum Supply of Employable Talent? 2016 - 2022



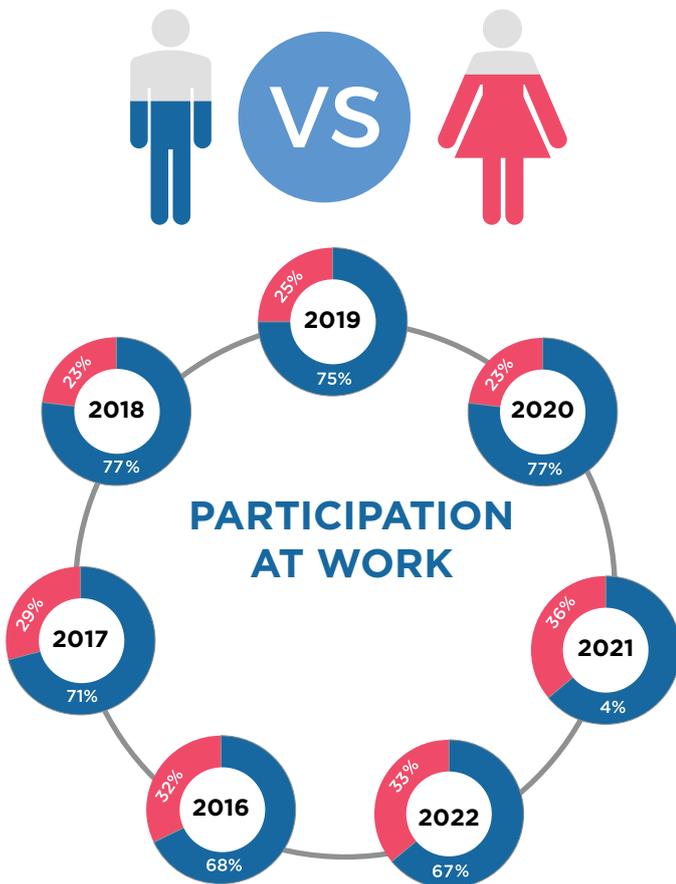
Percentage of Test Takers who Score More than 60%



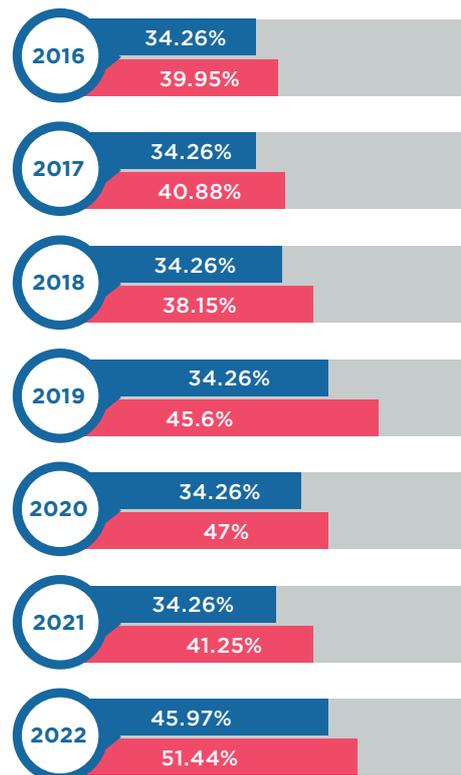
States with Highest Employability



Men vs Women 2016 - 2022



EMPLOYABILITY





**DECODING
THE FUTURE OF WORK**

Adoption of Emerging Technologies

Digital adoption has made way for new skill sets and opportunities to be leveraged in the coming years. While automation and smart machines are said to replace over 20 million jobs by 2030, it is estimated that more than 133 million new jobs will be created as early as 2022. The rise of data sciences and analytics requires qualified professionals and analytical thinkers with relevant practical knowledge. Content sharing platforms rely on articulate communicators, designers, and creative expression. BFSI outfits are dependent on high-calibre accountants, business analysts, and management and marketing professionals proficient in the latest software apps. Cyber security is a huge focus of small, medium, and large enterprises; dealing with sensitive data for business growth and maintenance. Computer software developers and AI experts across numerous industry verticals are necessary to modernization. Art and design professionals are also in demand across industries, looking to salvage the advent of internet communications for business visibility. The demand for skilled individuals is on the rise and more people are expected to be formally employed in economically advanced as well as developing nations globally. In fact, hiring across demographics is going to become an increasing trend owing to the improved access to a global talent pool.

Development in Artificial Intelligence (AI) is reframing the way we look at technology and the modern workplace processes. Emerging technologies that speed up business operations and IT development are highly sought after by industries. According to a recent report by McKinsey, 45% of all work functions can be automated using existing technologies. Through automation and machine learning, advanced computers can handle immense workload while freeing up time for employees to focus on more strategic roles. Owing to the rising demand for emerging technologies by workplaces, governments, and homes, the IT industry is expected to grow to \$5 trillion by the end of FY 2021. So what does the future of work look like?



Hybrid Workplaces

According to a report by Gartner, 51% of knowledge workers are expected to be working remotely by the end of FY 2021. Furthermore, the report estimates that 32% of all workers employed across the globe will be working remotely. However, in many areas where technology is yet to be fully incorporated, this forecast may delay in becoming a global reality. Companies in India realized the full potential of remote work during the COVID-19 pandemic and many business leaders are keen on adopting a hybrid work model in the coming year. In fact, a technology-driven workplace is in line with the vision for digital India that has been taking form over the past two decades. Considering that remote work enables increased flexibility and convenience, as well as lowered costs for both company and its employees, employees are happy to oblige to the new normal. Hybrid workplaces are a fusion of remote work and on-site work, creating a perfect balance where technology can centralize asset management for enterprise functionality. This means that batches of employees would work from home during a said period while another batch would work on-site. Or the choice will be left entirely to the company's employees and their convenience. This revolutionary idea of a modern workplace is tech-driven and reliant on innovative solutions that consolidate enterprise operations and reduce repetitive labor. Enterprises of the future will be data driven and dependent on crucial business insights to strategize sustainable growth. For this vision, qualified workers and skilling initiatives are vital.



Skilling for the Future

Harnessing the digital revolution could be the key to reducing India's skill gap and actualizing the government's vision of a high-growth, high-productivity, middle-income nation. The Phase 1 of Pradhan Mantri Kaushal Vikas Yojana (PMKVY) has managed to train 1.97 million people instead of the forecasted 2.4 million. Among this demographic, 1.27 million certifications were provided successfully. 1,100+ new Industrial Training Institutes (ITIs) were opened last year with the capability to train up to 173,000 individuals. By the end of the year 2019-2020, a recorded \$1.3 billion was released to reach 5 million people across India with training programs during the second phase of PMKVY activities. Major infrastructural changes and skilling measures are still required to bridge the skill gap in India for the year 2022. There are close to 15 million people aged 15-29 expected to enter India's working population annually for the next decade. Considering that the government skill gap predicts 109+ million skilled workers required to fill vacant positions in 2022, the importance of skilling initiatives nationwide cannot be ignored. These vacancies will emerge in 24 key sectors and the fully aware, future-ready professionals are in short supply. Through the Skill India Initiative, launched in 2015, National Skill Development Mission is on the way to providing job-ready skills training to 400 million individuals by 2022. However, among students leaving school, only 2.3% have had the opportunity to acquire job-specific skills. Furthermore, the World Bank approved a \$250 million project called the Skill India Mission Operation (SIMO). This program is aimed at providing training for market-relevant skills to make India's youth talent highly employable and competitive by world standards. The SIMO has struck a partnership for the next decade, with the first 6 years dedicated to efficient training programmes for in-demand skills. The SIMO targets the emerging labour market trends to enhance the training quality of their programs. Additionally, public-private partnerships are intended to design the latest curriculum for skilling in India. A CSR fund has been set up to gather contributions from the private sector's CSR activities for the purpose of skill development. And hence, numerous national and international Universities have come together in the past 5 years to make quality education more accessible to aspirants. With increased access to international education, more Indian students are venturing abroad in the search of new knowledge and new opportunities. As of January 2021, an estimated 1 million+ Indian students study in 85 different countries outside of India. For the vast youth talent pool that cannot afford overseas education, educational partnerships with overseas institutions and associates have risen up, to

offer flexible certification programs and foundation courses online. That being said, the able youth talent available in India should not always end up overseas due to the dissatisfactory infrastructure, income and opportunity available in India. If India is to emerge victorious in the race against time, the employability index of India's population should improve with focus on building infrastructural capacity. For this reason, governments, educational institutions, and the private sector establishments should take accountability of the emerging market demands. The good news is, ISR 2022 has identified a steady climb in overall youth employability and recognizes the immense effort of India's skilling ecosystem, many of them being partners in this year's study.



Global connectivity & Access to Resources

With over 624 million internet users, it is estimated that 45% of India's population has access to the Internet, and Indians on average spend 2.5 hours using social media platforms. Using targeted ads and outreach activities; e-learning companies, universities, and training institutes are reaching out to a vast majority of the youth online, in an attempt to promote future-ready skills. By introducing partnerships with tech giants such as Google, Amazon, and Microsoft, reputed Indian universities have tailored various certifications to enable a job-ready workforce for the future. Platforms such as Coursera, UpGrad, GreatLearning, Unacademy, and GrowthSchool among numerous other e-learning pioneers have risen up to make in-demand skills and international exposure accessible to the professionals and students in India. With a key emphasis on future jobs in Data Science, Machine Learning, Design Thinking, etc. premier educational institutions and corporations are merging with the e-learning market.

Considering that 76% of India's internet usage happens on mobile, the mobile-friendly approach offered by online skilling programs are a bonus. However, for practical skill-based training, the access to computers may prove vital where only 22% of the internet usage happens on a laptop or desktop. India being the chief marketplace of conglomerates such as Google, Amazon, Facebook, and Microsoft, resulted that the IT investments in local startups also went up during the past one year. With a renewed interest in the employability of Indian workforce, international partnerships are expected to further re-engineer the skilling ecosystem in coming years. According to the Reserve Bank of India, the Foreign Direct Investment increased by \$2.235 billion in July 2021. Compared to the investment of \$17.689 billion recorded in the peak of October 2020, this is still great news. The results of foreign interest have sprung up in the form of new tech startups, improved technologies, international partnerships, wellness brands, and better prices on foreign goods available in India. The access to high-quality resources have led to significant improvements in e-commerce, retail, e-learning, software development, insurance, and national governance policies. In fact, the period between 2019-2021 has witnessed the rise of several native social media apps, software products, e-commerce websites, energy partnerships, and social enterprises. These trends are set to impact the employability landscape of India through technology familiarity that is centered around the future demands of a modern workplace equipped with digital tools. Inevitably, the advent of a modern workplace comes with in-demand skills for employees who are not just analytical thinkers but strategic partners in identifying growth opportunities at their work.



Home-Grown Initiatives for IT Growth

The Indian industry is evolving with the latest technologies. 92% of all organizational IT infrastructure relies on cloud computing, while only 8% state that their IT is on-premises. According to Cisco, 94% of all enterprise workloads by the end of 2021 will be powered by cloud. To catch up to the global advancement, the National e-Governance Plan and GI Cloud Initiative by the Government of India is setting up National Data Centers, and State-Wide Area Network Infrastructure in varying parts of the nation. This will speed up innovation at scale in the Indian IT labs and engineering facilities. The plan set in place to transform India's data facilities will span over a period of 4 years, from 2021 to 2025. The renewed capacity is estimated to reduce dependencies on overseas markets for technology infrastructure and managed services, thus empowering home-grown IT development. Additionally, the government initiatives to support startups in India have witnessed favourable results in the Indian tech and entrepreneurial landscape. With an 80% rise in startup investments from 2020, a total of \$8.6 billion in funds has been leveraged by Indian startups. The massive influx of youth talent to the market benefits from this development in the startup ecosystem, as the likes of Zomato, Byju's, Zoho, Ola, Flipkart, Razorpay, Easemytrip, Paytm, Classplus, and numerous others are likely to hire more candidates in the coming years. The field of software development has witnessed a consistent flow of products hitting the market, with innovative uses and concepts that will lead the way forward for Indian IT. By promoting local IT tools among enterprises in India, costs are reduced and the homegrown tech industry flourishes. From the leading CRM software such as Freshdesk to payment integration software such as Razorpay, the emergence of Indian software products are encouraging the entrepreneurial and innovative spirit of this nation's forward thinking citizens. The massive growth of e-learning giants including Byju's and e-commerce businesses such as Myntra, Ajoio, and Flipkart is great news for the tech talent that India houses. To emerge as a key player in technology, India will have to capitalize on the available talent and chart a futuristic approach that nurtures young people to learn and acquire relevant skills eagerly. The growth of companies like Tata, Reliance, and Wipro is only an add-on to the ambition of digital India. Paired with an array of software development companies, business process outsourcing agencies, recruitment platforms, financial services, and talent advisors, the path forward for digitalization is a promising endeavour. Owing to remote work trends and increased access to

the global talent pool, the shortcomings of job-specific talent in India has already given rise to hiring from across the globe, to sustain the rapid growth of Indian industry. Last year alone, 10 unicorns joined the global unicorn club from India – CRED, Groww, Meesho, ShareChat, and Gupshup to name a few. Amidst the rapid development in IT and technology adoption in India, the startup empowerment trend is expected to rise even further in 2022, provided that the infrastructural development backs up the demand for qualified labour in India.



Sustainable Development on the Agenda

According to the data collected for the ISR 2022 report, the overall youth employability among test takers of the WNET stood at 48.7%, which is a significant change from the 2021 report where youth employability statistics stood at 45.9%. Various skilling initiatives spearheaded by the government are covering ground, but not enough to meet the targeted supply of 109 million workers by 2022. Additionally, the private sector hiring trends indicate more hiring across numerous verticals, which may result in a shortage of available talent in the coming years. However, the youth partaking in the test expressed a keen awareness of the rapidly evolving job market needs. In the IT domain, the need for qualified data experts, network engineers, cyber security professionals, UI/UX designers, content creators, and management professionals is on the rise. While educational institutions are churning out a healthy number of graduates in various disciplines, the talent demand is not satisfied with a degree alone. But there is a lot of good news. In 2021, the employability percentage for male graduates in India stood at 39%, while the employability among females stood at 41%. From 2014 to 2021, every year female employability was higher than males except for the year 2018 where male employability stood at 48% and female employability rate was at 46%. This year, the female employability ratio

stood at 51.4% while male employability was 45.97%. A hopeful indicator for gender diversity at the workplace, the rise in female employability is a strong indicator of India's success at providing equal access to education. In 2021, engineering and technology graduates were hired the most at 47%, while computer application graduates stood at 22%. This statistic is a foreshadowing of the extensive reforms required in the syllabus and curriculum of educational institutions to make students job-ready and future-ready. To foster sustainable employment in the coming years, Indian educational institutes must harness the latest knowledge and advancements in the field of technology and industry to arm our youth with necessary qualifications. This year, the demand for engineering graduates that are early in their career has gone up further. At the rapid rate of innovation in the field of computer science and technology, new frameworks and languages are steadily being introduced. Low code platforms, python, flutter and cloud app development have seen significant market share in the last year alone. To catch up with the visible changes in the economy, training and education should include a competitive curriculum to create a sustainable workforce of the future. Often, graduates end up taking online courses and additional certifications to get job-specific skills that are easily overlooked during their college tenure. To address the lackluster performance of India in sustainable development goals index, the 2030 agenda is set to address 231 distinct global indicators of sustainable development goals. Sustainable skilling is one of them. Central, private and state governments have spearheaded initiatives such as MSDE, AICTE, Sunstone Eduveristy, SANKALP and ASAP Kerala, to name a few of the successful operations for skilling. Provided that more resources are allocated to identify, train, and deploy qualified labour in the year 2022, the demand for talent across industries will be met effectively. As is the case, the demand for freshers by industries of all sizes are promising for the economic opportunity going ahead. The talent landscape stands to benefit from the widespread digital adoption and gig economy growth as well. Technology familiarity and adaptability will determine the growth of professional aptitude that enables job-ready individuals. The economy is evolving, from being predominantly agro-based to manufacturing and service based. To understand the employability trends better and capitalize on India's youth talent pool, it is essential to study the available data and chart a course for sustainable skilling and employment opportunities in 2022 and beyond. The ISR 2022 report dissects crucial insights into the employability landscape of India, following the theme; Re-engineering Education and Skilling - Building for the Future of Work. The data provided will match the supply and demand of talent available in India to the future prospects of rapidly evolving industry requirements. The report combines an assessment of 3 lakh candidates from across India who took part in the WNET, and the India Hiring Intent Survey taken by 150 corporates across 15+ industries who shared their expert hiring forecast for the year 2022.

Institutional Partner



All India Council for Technical Education (AICTE)

Established in 1945, AICTE emerged from the CABE recommendations to control, stimulate, and coordinate the means for industrial and educational development in the country. The growth of technical education in India was responsible for the expansion of AICTE into a premier entity. Stemming from reform policies during the 1980s to recalibrating Independent India with the focus on technical education and development, AICTE was a key player in introducing the participation of private and public sector for technical education. The council is responsible for stimulating the growth of the technical education sector in India since its inception. By providing access to technical education for millions of candidates across India, the goal is to sustain technical education, skills, and competencies by supplying resources, techniques and means for sustainable growth across various technical industries and roles.

Recently, the AICTE body has released a strategic roadmap for the various skilling initiatives taken in the country, and their impact on building for the future of work. The ongoing skilling operations by AICTE are continuously returning favourable results and responsible for the contribution to youth employability nationwide. Some notable initiatives and their results are as follows.

National Employability Enhancement Mission (NEEM) Scheme

Date of Implementation: 26th Feb 2014

NEEM aims to offer the job practical training to enhance employability of a person either pursuing his/her Post Graduation/graduation/diploma in any technical or non-technical field. Under the scheme, AICTE has registered NEEM Facilitators who are giving NSQF compliant industrial training to students for a minimum of 3 and a maximum of 36 months. This scheme got populated slowly in the initial phase and subsequently geared up



Dr. Neetu Bhagat

Dy. Director, AICTE

“Wheebox in partnership with AICTE is discovering and reaching this young talent. With the economy growing up, we are confident of a lot of newer jobs being created and hence to generate skilled minds is the need of the time and I am sure that Wheebox is trying to reach this goal. The India Skills Report is an important benchmark in this respect. The insights captured in this report would surely help in taking steps for matching the skilled demand from industry and the supply of talent pool.”

more successfully in the industries by accepting the real cause of this mission. Due to exemption from Labour law provisions at par with Apprentice trainees which are explicitly accommodated wherein the category of NEEM trainees, some objections from the labour department have been received. Therefore, NEEM regulations are being revisited by the Ministry. Till date, there are 48 NEEM facilitators with around 5.8 lakh students benefiting under this scheme from different NEEM operations.

Skill Knowledge Provider approved by AICTE

A Skill Knowledge provider (SKP), provides hands on skill training in a specific sector, e.g., in the Automobile sector SKP shall be the service centre of authorized automobile manufacturer located preferably all over the Country, or

in the IT sector SKP shall be the training centre of authorized IT company located preferably all over the Country At present 16 AICTE approved SKPs are functioning.

The objective of the scheme is to provide the skill training in the related sector & specialization under National Skill Qualification Framework. In this scheme, the Education component is taught by the institute and the skill component is covered by the SKP/training provider/ industry partner approved by NSDC or Govt. Agency.

SKPs are industries or specialized training centres. Under this initiative, the Council has signed a MoU with the following organizations to use their skill training centre for giving vocational training to students admitted under NSQF Program.

Pradhan Mantri Kaushal Vikas Yojna for Technical Institutions (PMKVY-TI)

Date of Implementation: Since year 2017-18

AICTE is implementing the Pradhan Mantri Kaushal Vikas Yojana for Technical Institutes Scheme through its approved Institutions, with an aim to impart engineering skills to the unemployed youth and help them find placement.

The following are the number of institutions and beneficiaries under the scheme.



The National Steering Committee of PMKVY-TI has approved to train 3,71,025 students in 1712 Institutes/ Polytechnics in the Academic Year 2018-19. At least 70% of students should be employed for releasing the final installment. Total 103005 students got certification under the scheme. The similar scheme in self-financing mode is being designed to be implemented in the next academic year.

Vocational Degree/Diploma Courses (B.Voc/D.Voc)

Date of Implementation: AY 2018-2019

From the year 2018, Council has introduced the Entrepreneurial Degree/ Diploma Programs leading to Degree or Diploma in Vocational Education under NSQF for AICTE approved institutions.



Students who have completed their 10th or 12th and are interested in Skill based education are trained and deployed. The existing resources of the Institution including Faculty, Library, Classroom, Computer Centre, etc. shall be used for running the Vocational Courses. Various efforts to support these initiatives are being taken by AICTE as development of Curriculum (B.Voc and D. Voc) in emerging areas.

Utkrishi Sansthan Vishwakarma Award (USVA)

Date of Implementation: Since 2018

AICTE instituted Vishwakarma Awards in 2017, to encourage and motivate young students and institutions to raise their performance in their specific domains leading to significant contribution towards the growth and development of the nation as a whole.

CII Industry-Linked Survey

Date of Implementation: Since 2012

AICTE in association with Confederation of Indian Industry (CII) has been conducting a survey of Industry-Academia Collaboration since 2012. This survey is to map the industry linkage of India Technical Institute to showcase the best practices of partnership with industry and highlight the strength and weakness of the ecosystem of Technical Education in India.



SUMMARY OF KEY FINDINGS

Overview of Employability in India

The WNET, a test for aspiring professionals, revealed the rising employability of youth in India. Overall **46.2%** of the youth were found to be highly employable among the test takers. Compared to last year's employability standing at **45.97%**, this is a significant improvement. Considering that India has a vast youth population, this statistic is encouraging for the skilling ecosystem that has been readily involved in the process. Among the employable youth population, **51.44%** of females were found highly employable while **45.97%** of males were found highly employable. Considering the dramatic shift in the gender-wise employability over the years, the positive impacts of societal and economic changes at the root level are optimistic because more women are found highly employable compared to men over the past few years continuously. Among the surveyed students and aspiring professionals, **B.Tech graduates** and **MBA graduates** were found to be the most employable talent from the various domains. States of **Maharashtra, Uttar Pradesh, Kerala, and West Bengal** were identified as the regions with most of the employable youth talent. The demand for qualified and skilled professionals will be driven by sectors including IT/ITES, Pharmaceutical, E-Commerce and, BFSI. The hiring in these sectors is expected to increase by **20%** for freshers in 2022 compared to 2021. Technology as a skill set will continue to be in demand across industries. Compared to the **36%** of women participation in the workforce last year, this year has witnessed a similar participation with **32.8%** of women employed in the workforce across diverse industry verticals. Furthermore, **67.2%** of men make up the larger portion of employed professionals. Women participation in the workforce is being encouraged by more companies with an intent to hire more female resources in the coming year. While there are more employable female resources at **51.44%**, and with male employability at **45.97%**, it is expected that the economic changes and new job opportunities will improve the gender wise participation statistics. The overall increment in employability among youth is a positive indication of the widespread skilling, e-learning, awareness and emerging job opportunities that can be leveraged in the coming year. Skill-enhancement initiatives and online education will play a major role in developing India's youth into highly employable future-ready professionals. ISR 2022 provides crucial insights into the evolving talent demand and supply across India. Armed with the knowledge of key drivers of employability in the nation, a team of experts and our esteemed partners have studied and contributed to projecting a roadmap to building for the future of work. Significant changes in the way we

work and the change in perception of work are expected to influence decisions taken by India's youth and the industry leaders across the private and public sector.

The data collected for India Skill Report 2022 uncovers the demand and supply of talent in India, in relation to the initiatives taken to adapt and build for the future of work. The growing demand for skills in various technology-related, data-driven, technical, and vocational roles are explored in-depth. Assessing the employable resources in each domain will help pave a strategic way to prepare a future-ready youth. Each city and state that houses the most competitive employability statistics are studied with key focus on in-demand skills and awareness. Through the India Hiring Intent survey covering **15+** industries PAN-India, the goal is to gain insight into the industry-wise demand for qualified youth, emerging opportunities, and expected hiring patterns making way into 2022.

The National Employability Test Analysis

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

Overall youth employability in India has **increased** to **48.7%** compared to last year. The highest employable age group was identified between **22-25** years of age, with **56.21%** of the resources in this age group considered highly employable.

BTech degree holders have emerged as the top demographic for highly employable resources domain wise, with **Information & Technology** graduates comprising **68.5% of the high performers** on the WNET test.

Youth from the states of Maharashtra, Uttar Pradesh, Kerala, and West Bengal were considered the most employable in terms of demographic talent availability.

The percentage of female employable resources is **higher** than male candidates, with **51.44%** females found employable and **45.97%** of males found employable. The steady increment in female employability over the past decade is a hopeful indicator of structural changes in India's emerging job market.

Overall, **67.2%** of the workforce consist of men while **32.8%** consist of women in India. While the state of Telangana was found to have the highest being 39.42% of job-ready females, Karnataka state followed with **35.44%**. Similar to last year, this year's data shows that

a majority being **88.42%** of test-takers are seeking internship positions within organizations.

The emerging talent landscape is expected to create more job roles with internship opportunities for freshers and professionals in their early career who will be urged to pick up on new skills. With the increased availability of skilling opportunities, whether online or via Government and private training firms, the future is bright for India's youth, provided that the right guidance is offered between the transition from education and work. By creating awareness about emerging opportunities and satisfying India's rising demand for diverse talent, the youth can be moulded into future-ready assets of the nation in 2022 and beyond.

Fun Fact: Gujarat topped the list of states with highest availability of employable **B.Arts & MBA Graduates** in the country.

From our Study of the Talent Demand Side: The Hiring Intent Survey - Early Career Edition

India hiring intent survey 2022 recorded a significant change since last year, with a positive hiring intent of **35.96%** for the demand forecast of 2022. Considering the large pool of employable resources among the youth in the country, this statistic is a hopeful indication of job prospects made available for the rush of India's youth into the workforce.

Females consist of **32.8%** of the total workforce, while males make up to **67.2%** of the total workforce. Gender participation is slightly lower than the previous year which is still on the agenda for India's 2030 sustainability roadmap for the future.

Most female participation was found in the **Internet Businesses sector**, with **54.5%** of female participation. The gender distribution between female and male employees is expected to level out considering the higher percentage of employable female youth population.

The highest number of male workers were recorded in the **Retail sector** with **95%** comprising men, followed by the Manufacturing sector with **88%** being men, and then the Automotive industry with **80%** of men in the workforce.

Female workers in the **IT & Tech businesses** were projected at **52.67%**, followed by the **Pharmaceuticals sector** with **35%** comprising women and then **BFSI with**

30% women participation. With the inclusion of remote work opportunities and hybrid models, a more distributed workforce is expected in many of the industries. **Pune** is the city with the highest percentage of employable resources between 18-21 with **81.3%** of test takers found highly employable in the city. Second comes **Kolkata**, with **78.5%** followed by Bangalore city with **65.87%** youngsters found employable.

Hubli was identified as the city with the most employable youth capital in the age of 22-25, standing at **75.97%**, after which **Bangalore** has **67.13%** of employable youth in this age group.

Candidates with **1-5 years** of experience continue to be in high demand, with a positive incline of **35.76%** demand for qualified professionals in Non-tier 1 & 2 cities across India.

75% of all companies surveyed report a skill gap in the industry, while **100%** of Retail sector employers agree that there is a skill gap to be filled in the coming year.

More than **50%** of the companies surveyed hire from the government initiated skilling centers, of which majority are happy with the quality of hire and reported that the talent match their expectations

It is estimated that **46%** of a positive hiring intent is expected in the **Software, hardware & IT domain** for qualified professionals in the coming year, with optimistic availability of resources to back the demand.

The overall employable resource availability has increased by **2.8% to 48.7%** compared to last year, a huge boost in continuing skilling initiatives and awareness of emerging jobs as a prime focus for the government, private sector, and education in India.

Maharashtra, Karnataka and Tamil Nadu were identified as the top states where maximum hiring activity will occur in the coming year.

Key Takeaway: Fresher's in demand!

Internet Business, IT, Pharma, Core and Energy sectors are expected to drive the demand for talent with no experience. The demand for engineering talent is growing steadily and the trend is expected to continue in the coming year. As new jobs are expected to show up in the economy, the vast youth talent pool should compete with global trends to emerge job-ready in a race against time.

The Awakening of Digital India

As more unicorns emerge and the tech sector dictates the flow of economic opportunities, there is massive demand for qualified labour. Despite having a vast youth talent reserve, there are many areas in IT and digital where India's youth require specialized training and dedicated awareness to become job-ready. The demand for data experts, business analysts, developers, leaders, strategic thinkers, creators and knowledge workers is on the rise. While many native companies and software pioneers include AI and machine learning as the prime offering, both front-end and back-end human capital is required to sustain the growth curve of Indian IT. The IT industry of India accounted for more than 8% of the national GDP in the year 2020. That's more than the average of 29 states across the nation. As of FY21, it is expected that the IT & BPM industry will grow to \$194 billion by the end of the year.

Domestic spending in IT alone is at \$45 billion, while IT exports are projected to cross \$150 billion by the end of FY21. Gartner reports that IT spending in India will cross \$93 billion this year with a 7.3% year on year growth trajectory that will add to the \$98.5 billion in the coming year of 2022. At such a rapid rate of growth, infrastructural changes and skilling initiatives are the main agenda of conglomerates, SMBs, training institutes, educational boards, and the government. Considering that remote work is opening avenues for Indian tech industries to leverage a global talent pool, the availability of qualified labor within the country will determine the overall growth of India's economy. Job roles in the field of digital marketing and e-commerce are expected to go up, with a number of emerging outfits offering vocational training and project-oriented specializations to students. Additionally, the creator economy on social media is gaining a big push from local supporters and the private sector alike. The concept of self-employment is gaining momentum as internet services, stock exchange and drop shipping offer sustainable options for young entrepreneurs. That being said, the awareness of emerging job trends are justified by only a small percentage of India's youth talent, with a vast majority requiring hands-on training and development to meet the rising demands. Unless the skilling landscape evolves with the in-demand skills of the digital India we all want, the present skill gap in IT and BPM will prove daunting for the Indian economy.

The data shows that data science, cloud technologies, healthcare professionals and finance professionals are in high demand, there being a sizeable gap in this area.

While e-learning and institutional partnerships aim to bridge the deficit, the rate of advancement in IT is twice as fast as the number of qualified experts available. While 48.7% of WNET test takers were found employable, the IT domain has 55.15% of employable talent, followed by the MBA domain with 55.09% of employable talent among the youth. This shows that the academia and youth are aware of the massive demand in these fields of study. Maharashtra is the state where the most number of BTech test takers scored above 60% on the WNET test comprising 71.82%. The age group between 22-25 is considered the most employable at 56.21% after which the age group between 26-29 was found highly employable with 55.39% of the test takers in this age group being highly desirable. The popularity of online courses and skill enhancement initiatives can further empower more youth with the relevant skills for the future of work. The least employable talent was identified within the age group of 18-21 with 49.22% of test takers considered highly employable. The India Hiring Intent Survey shows that people in the age group of 26-29 are most wanted by industries, with a 35.76% demand for candidates with 1-5 years of experience. Talent who are starting out or who are early in their career are in high demand. To match the existing human capital of India's vast youth population with industry demand, strict measures should be taken at the societal and institutional level across the country.

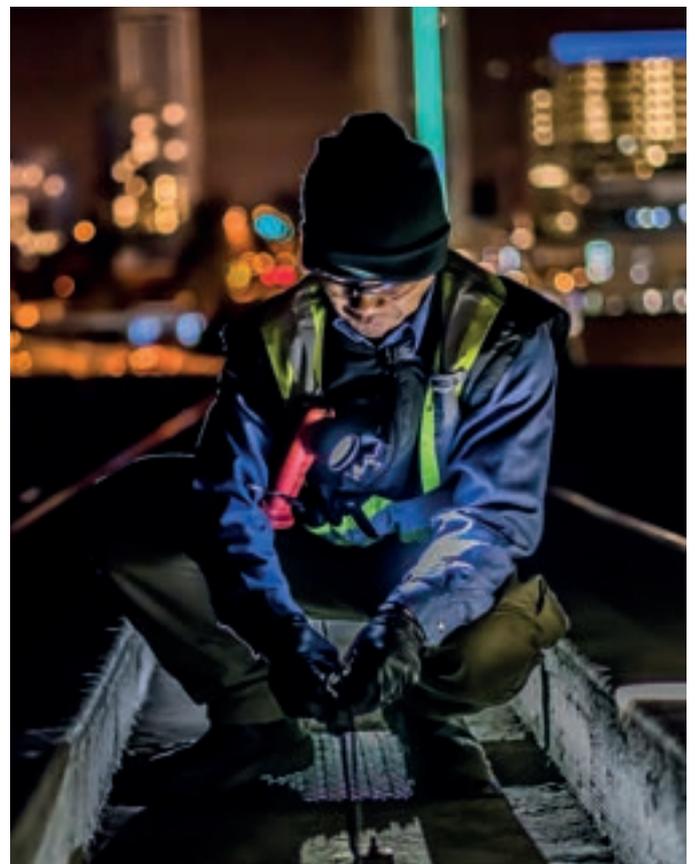


Fun Fact: 86.14% of WNET test takers have a computer at home.

Exposure to Emerging Job Market Trends

As the evolving job market demands new skill sets to match available talent with the many emerging opportunities, it is pivotal that the youth are encouraged towards a culture of self-development and acquisition of new skills. As is the norm with increased access to learning resources, e-learning and skill development are being promoted by state and central governments. The corporate sector is heavily involved in allowing employees to acquire new job-specific skills while working. To address the key drivers of employability in India, the latest trends in available employment opportunities are an influential factor. As more startups aim to scale up in the coming year, the need for strategic thinkers and leadership professionals are on the rise. Additionally, job-specific skills such as data analysis, growth hacking, data visualization, vocational training, market research, product design and creative ideation are in demand. A knowledge driven economy requires qualified experts in various fields, to raise the bar and encourage the youth to constantly develop existing skills while acquiring new ones. As ecommerce booms, marketing managers are only the beginning to a long list of professionals required to sustain the various aspects of ecommerce operations, like packaging, logistics & shipping, web development, business development, regional sales, accounting and more. Additionally, Indian enterprises looking to expand overseas require critical thinkers to interpret data and project a successful strategy for business growth. The trend to hire from overseas is increasing, with more Indian startups eventually making their way to foreign soil due to the many benefits. The rise in the number of NASDAQ listed firms from India, such as the most recent Freshworks IT company in September 2021 is an example of this trend. Software products are increasingly becoming available to people of all fields, who can harness advanced technology to maximize the output of their business operations. The empowerment of the internet is creating new forms of work and self-reliance, which is the basis of the future of modern entrepreneurship. People who know how to use software are expected to rise above existing legacy infrastructure and processes, in an attempt to gain market share in trade and retail. MNCs and foreign investors are banking on the Indian youth to develop and deploy skilling initiatives that offer job-specific opportunities for growth, which are often leveraged by overseas investors owing to the availability of cheap labor in India. Additionally, the most qualified and exposed talent in India is often seen making their way to foreign countries due to the higher pay, academic standards and lifestyle benefits. Additionally, a large

number of India's youth, be it designers, writers, trainers, coaches, teachers, web developers, software engineers, daily wage workers or logistics operators are dependent on India's competitive freelance market. The freelance market in India witnessed a 22% growth in available jobs from January 2019 to January 2021. This trend is further increasing with a sizable chunk of the talent pool leveraging freelance markets and groups online or offline. While a huge proportion of India's youth would like to start a business of their own, the infrastructural changes required to fuel their dreams are rather shallow. Being self-employed is a matter of stability and often, students with big dreams end up seeking employment due to the expensive lifestyle in cities or the lack of opportunity in rural India. Sustainable development, infrastructural changes and urban planning is a byproduct of globally awareness generated locally, and mutual collaboration towards the sustainability of India's youth talent. To create a unified approach for skilling in India, it is fundamental that homegrown initiatives continue to develop and hire homegrown talent, ensuini that skilling is not limited to BPOs and foreign enterprises, but also to the core fabric of India's vibrant economic fabric. For the benefit of digital India's rise to stardom, continuous self-development is an individual responsibility bestowed upon each of us through the ISR 2022, with insights from academia, society and the thriving corporate India revealing the same.



Research Partner



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. 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 to AIU.

In a run up to this year's India Skills Report 2022, AIU showcases twwhe skill development initiatives taken to contribute to the increment in youth employability nationwide, through tailored programmes for candidates. The following section covers some important steps taken by the Association to promote the skilling ecosystem of India as we enter the new year.

ANVESHAN – Student Research Convention

Anveshan-Student Research Convention is conducted every year to identify and nurture the young talents and budding researchers in the Indian Universities. In these Conventions, Innovative Research Projects are invited from the students (Undergraduate to Ph. D level), and assessed by a group of experts of the field on a well laid criterion. The best Research Projects are conferred with



Dr. Amarendra Pani

Head Research Division, AIU

“ It is a pleasure indeed to be a part of the release of the 9th Edition of India Skill Report, a comprehensive repository on the employability status of the Final year Engineering graduates of Indian higher education institutions brought out by WHEEBOX in partnership with Association of Indian Universities, CII and other organizations. The India Skill Report has been proved to be one of the most credible report projecting the employment readiness of the young graduates and tracks the employability patterns. It provides vital inputs to support and strengthen the efforts made by various stakeholders including the Government to build up the pool of employable resources for supporting and strengthening the economy. I am sure 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 of the country and addressing the issues pertaining to the demand and supply imbalances of the country . ”

certificates and awards. The Conventions are held at two levels i.e., Zonal and National. The duration of each convention is two days.

Target Group: The projects are invited from students of Graduates/Post-Graduates/Ph.D in the disciplines of Basic Sciences & Applied Sciences, Engineering and Technology, Agriculture and allied fields, Health Sciences and allied fields, Social Sciences; Humanities; Commerce; Business Management; and Law.

Objective/Impact: Anveshan aims at identifying the young and rising talents who would be promoted through proper encouragement and incentives. Also, an attempt shall be made to commercialize their research projects with industrial collaboration. The endeavour may accelerate scientific research and innovation and their application towards community

AIU- QEDEX Platform for Development of Faculty

AIU in collaboration with QEDEX, a Subsidiary branch of QASPIR, UK, launched a Professional Development programme. The Launching Ceremony of the Programme was held on December 10, 2020. These courses are self-paced, online, asynchronous courses that will allow both faculty and staff opportunities for career advancement and lifelong learning across a campus.

Target Group: Faculty members of colleges/universities and other higher education institutions.

Objective/Impact: The programme aimed at upskilling and professional development of faculty members of our higher education institutions, especially training of the teachers to deal with the challenges of online education and remain relevant in terms of upgrading their knowledge and practice in teaching.

Leadership Development Program in Circular Economy

Association of Indian Universities in collaboration with International Council for Circular Economy (ICCE) organised a 'Leadership Development Program in Circular Economy' on October 06, 2021. In program issues like the concept of Circular Economy, the role of planning, development, and inclusion in the curriculum was discussed.

Target Group: More than 110 participants constituting Vice Chancellors, Deans, Directors and other Senior functionaries attended the programme.

Objective/Impact: The event was aimed at sensitising the apex academic leaders i.e., Vice-Chancellors, Registrars,

Deans, Directors of Universities. Unlike the linear economy model, in a circular economy, products and materials keep circulating in a high value state of use, through supply chains, for as long as possible, thereby minimising the waste which may support the sustainable development goals.

Crime and Criminal Tracking Network and Systems (CCTNS) Hackathon & Cyber Challenge

AIU partnered with Cyber Peace Foundation for the CCTNS Hackathon. Hackathon offered a unique opportunity to the participants to advance their skill, knowledge and build networks for future growth.

Target Group: Academia, industry and students are invited to help improve existing IT applications as well as help identify new IT applications to improve the CCTNS ecosystem.

Objective/Impact: The objective of the programme is to build collective resiliency against cybercrimes & global threats of cyber warfare.

As the growing demand for skilling in various technical and non-technical roles emerge, the Association's efforts in taking the youth forward have paid off. In this year's report we cover the in-demand skills that are being nurtured, the requirements of changing times and the efforts taken by our partners in preparing the talent ecosystem for the future. The Association's long-lasting partnership with Wheebox India Skills Report is a testament to the continuous collaboration required to nurture the youth with future-ready skills and data that guides the budding workforce towards opportunity.



NATIONAL EMPLOYABILITY TEST ANALYSIS
THE SUPPLY STORY

India Sets up for A Steady Climb



The median age of the Indian population is 28.1 with the average age of males being 27.2 and females being 28.6 years old. Among the WNET participants 48.7% were found highly employable. Considering that the average age in India consists of a majorly youth demographic, the rapid changes in the economy should be addressed through skilling initiatives, education and facilitating job opportunities through infrastructural development. Considering that India is the largest IT offshoring destination for companies worldwide, the IT sector contributes up to 8% of the total national GDP. With an export valuation that is 5 times that of the domestic spending on IT and BPM, India's rise with technology has branched into various industries and verticals. Notably, the inclusion of smart farming and increased connectivity in the agricultural sector could reap immense benefits for citizens of this diverse nation. Predominantly, India is known for its agricultural sector which produces 21% of the world's coconuts and 19% of world share for bamboo cultivation. Considering that approximately 50% of India's population depends on agriculture, the nation derives a lot of benefits from supporting agricultural industries. A PLI scheme was introduced recently with an overlay of \$1.4 billion for the food processing sector, expected to span over six years starting in 2022. Similarly, electric vehicles are rising in demand in an attempt to battle India's pollution problem in cities and towns. While the Automobile industry makes up for 7.1% of the Indian

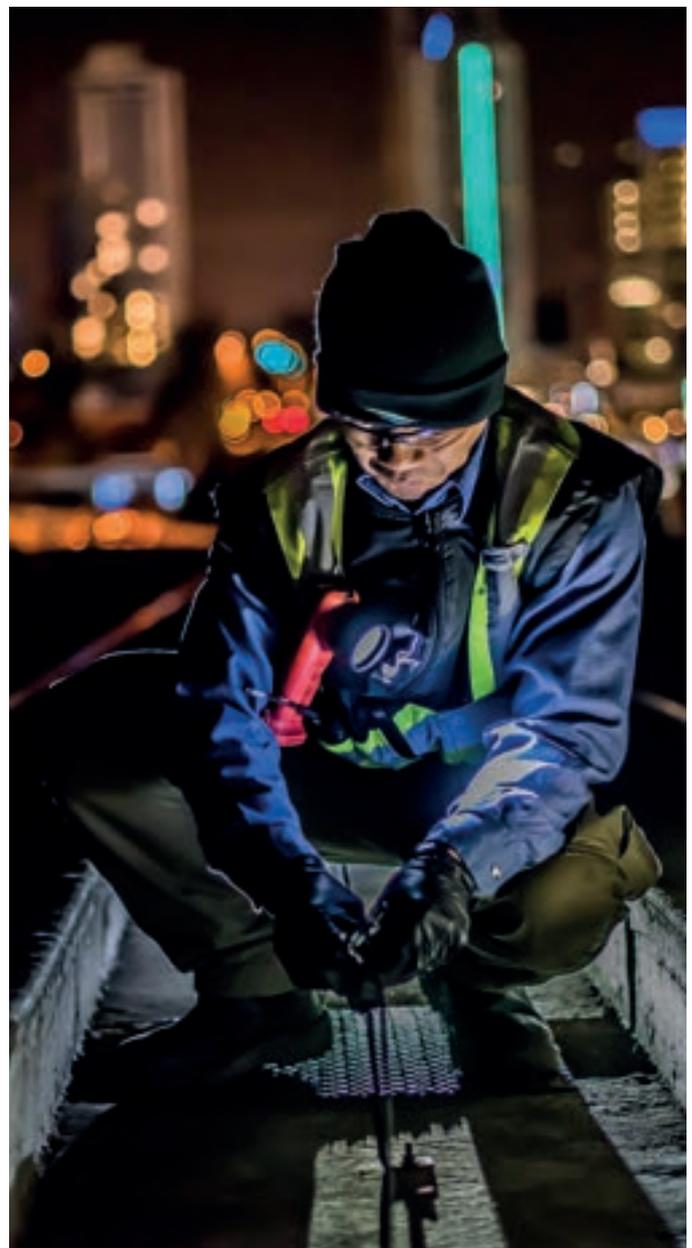
GDP, manufacturing auto components are only at 2.3% of the market share of India's GDP. With the introduction of locally sourced electric vehicles, the manufacturing capacity is estimated to increase in the coming years with focus on skilled labour in electrical and product engineering. India's electronic systems market contributes 2.9% to the GDP with a domestic expenditure of \$118 billion annually and ~12 billion in exports during 2020-2021. Paired with the introduction of hybrid vehicles and energy efficient power systems, the industry is estimated to hire more qualified labour in the coming year. In terms of aircraft passenger volume, India stands as the 5th largest market. As globalization creates a more interconnected system of travel and commute, the aviation industry is expected to witness a 15.9% increase in foreign tourist travel. This is a huge boost for the travel and tourism industry, which employs close to 90 million people nationwide. While India's Tourism sector holds a mere 1.2% in arrivals of world tourists, the expenditure behind this industry in terms of foreign exchange earnings crosses \$29.9 billion. Furthermore, India boasts of infrastructural capacity in the field of Biotechnology with 60+ bio-incubators, 9 biotechnology parks and 4 Bio-tech Science clusters spread across the nation, aimed to grow at 14% CAGR between 2022 - 2025. The success of the COVID-19 vaccine in India is a testament to India's scientific prowess and public emergency response system, in arguably one of the

most challenging times of the century. Furthermore Construction & Urban development makes up 9% of the national GDP, employing more than 50 million people nationwide. Telecom contributes 6.5% of the total national GDP, with an expected increase in hiring across various industries and segments including BFSI, Public Administration, IT and Insurance. The healthcare industry in India is projected to reach \$372 billion by 2022, ramping up the need for qualified healthcare experts in the field of telemedicine, public health and nutrition. Indian ports are expected to increase by 2.9% in overall cargo traffic growth by 2022, with 95% of the trade by volume being handled by the Maritime industry in India. Meanwhile, locally produced leather, medical devices, foodstuffs and textiles are expected to grow in export capacity over the next year. Textile from India alone holds 12% of the global export share in the world market. This comes after numerous native startups and fashion outfits have risen to prominence via digitalization to gain increased market visibility. The oil & gas industry has positioned India as the 2nd largest refiner in the whole of Asia. The domestic metal and mining sector is estimated to increase to 300 Metric Tons capacity by the year 2030. A 243% increase in the Renewable Energy installation capacity over the past 8 years is another huge boost of India's energy sector. Government and international investments in India's Energy & Core sector are seen to have increased the volume of workers required over the past 6 years. At the rapid rate of industrial advancement, pharmaceuticals and chemicals are also expected to be exported at a higher rate in 2022. Albeit, the economy is set for a steady climb with the manufacturing capacity and natural resources available in the country. Despite the negative impacts of poor urban planning, handling natural disasters and low wages in the country, more employment is on the horizon for India entering another year at the speed of light. The question beckons, are the youth talent of India future-ready? How do we build a self-sufficient India for the evolving nature of work?

The candidates partaking in the WNET comprised various educational domains, covering **3 lakh** students across the country. The Wheebox National Employability Test is a scientifically curated assessment that serves as a guide to identify and match the available youth talent in India, by assessing their youth employability from a perspective of being job-ready for the industry demands. This year's WNET is the 9th edition where Wheebox consecutively studied the employability landscape of India's vast youth talent. Despite the unemployment surging during the COVID-19 pandemic, the year 2021 was a slow but steady arrival to a new normal, where remote collaboration, modern workplace solutions and tech-driven insights

shaped much of the industrial activity. As India continues to compete on the global stage in terms of manufacturing capacity, exports and technology innovation, the job-readiness of the youth will determine how the nation responds to emerging opportunities. By attracting foreign investments at a record pace, Indian industry has exemplified the phrase, "never let a crisis go to waste." However, the available youth talent can only be harnessed with efficient skilling opportunities as well as infrastructural development on time, as we unpack the results of the WNET 2022 results.

WNET discovered that 48.7% of the participating Indian youth was employable while 88.42% of the candidates expressed their desire to land an internship to jumpstart their careers.

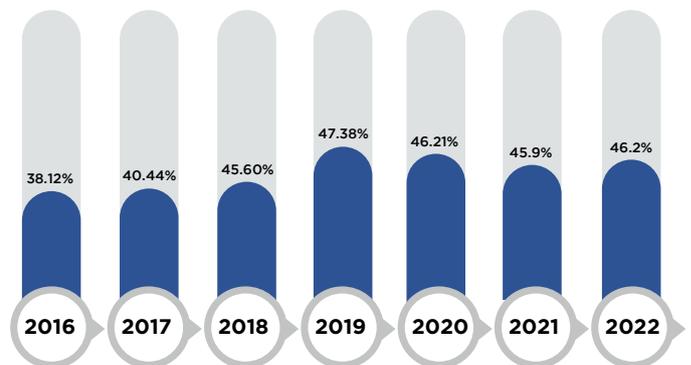


Are The Youth Future-Ready?

An **increase to 48.7%** in the overall employability of youth in India showcases the availability of job-ready talent as we enter 2022. Compared to last year, this is a **+2.8%** change in the overall youth employability, indicating an aware and ready skilling infrastructure that is gradually accelerating this growth trend. According to this year's results, technically oriented job roles were the prime focus of test takers, reflecting in the domain wise participation of candidates. A job-ready pool of 48.7% can pave the way for strategic skilling initiatives that aim to capitalize on the opportunity available in the coming years. In February 2021, India's unemployment rate across urban and rural India dropped to 6.9% compared to the heights of unemployment recorded in February 2020 which stood at 7.8%. The fluctuations in employment rates are also attributed to the massive influx of job-ready youth into cities from rural areas, and the revival of companies recovering from the global pandemic of COVID-19. As more companies have ramped up on hiring freshers and experienced professionals, the demand for qualified labor is ever increasing. Students with a high employability score in the WNET are attributed to geographies where the youth were found more employable than others. It was found that states of **West Bengal, Uttar Pradesh and Tamil Nadu** were among the top regions to have available skills in English as a second language, a fuel for the global connectivity and digitalization across industries. **Uttar Pradesh, Tamil Nadu and Karnataka** were the states with highest availability of critical thinking skills, while Karnataka, Maharashtra and Telangana were recorded as the toppers of computer skills availability. The test takers with highest overall employability were found in the states of **Maharashtra, Uttar Pradesh and Kerala**, emerging as the top states with job-ready youth - a direct impact of the widespread skilling drive and job market awareness in these states. A clear offshoot of NSDC's skill development initiatives, e-learning platforms and private training institutes are a result of the continued maintenance of employable talent nationwide. Another factor of employability is the available job opportunities in the market, which nurture aspirants with fresh goals to pursue a career in the given fields. However, the stake of technology in India's industrial setting calls for a modern approach to learning and adapting with an efficient skilling ecosystem at the roots of education. Students with in-depth subject knowledge are highly sought after, and the technical technology familiarity to maneuver the latest ebteroruse processes is a huge bonus. While access to technology and the internet is on a steady climb, content creation is a funda for the younger children at schools and also

among the college students. In fact, educational content is gaining more prominence, which is hopeful for the job-readiness of India's youth, and for creating awareness about the in-demand skills. The steady incline in India's youth employability is influenced by the structural economic changes and the dramatic focus on "being employed vs self-employed," spreading like wildfire among young people who have big dreams and access to resources like never before. The most employable age group was found to be between 22-15 years old with 55.15% being highly desirable. Surely, the stress on modern day skilling is meant to maximize the availability of job-ready youth for Indian industry as demand rises in the coming year. Considering the overall change in employability from 2020-2021, there are furthermore opportunities on the horizon that will redefine the economic landscape of India in the year ahead. As the new year comes knocking, new skills are in demand and new jobs are to be met with the befitting talent.

As recorded, 46.2% of the Indian youth is employable while 88.4% of test takers are seeking internships to kickstart their careers.



B.Tech GRADUATES & MBA GRADUATES WERE IDENTIFIED AS A HIGHLY EMPLOYABLE MAJORITY WITH THE HIGHEST AVERAGE OF EMPLOYABILITY SCORES.

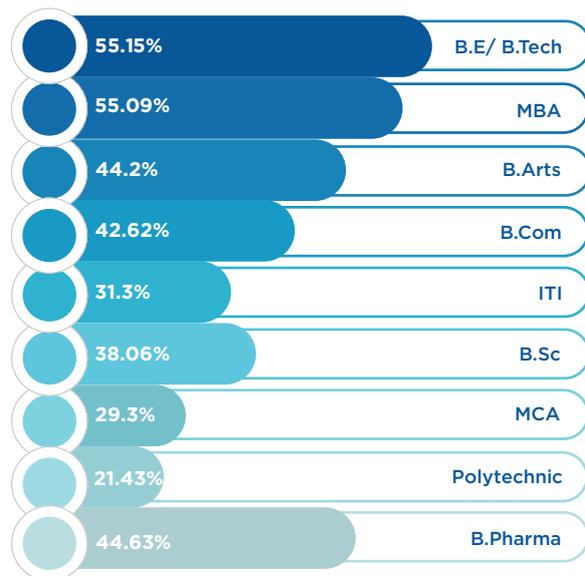
When the employability scores were studied, it was revealed that **BTech graduates** had the most employable majority with **55.1%** found highly employable, scoring over 60% on the WNET. **MBA graduates** followed as the next most employable domain with **55.09%** talent found employable. **BPharma graduates** were also found highly employable with **44.62%** job-ready talent followed by **B.Arts with 44.2%** found highly employable. Last year as well, Engineering graduates retained position as the most employable majority from any domain, and this year **MBA graduates and BPharma graduates** are catching up. When studying the role of technical education in emerging job trends, this is a huge boost for India's employment landscape.

further made up the majority of highly employable resources. With IT, Data science, Urban development, Public health, Robotics, F&B and Automobile witnessing a steady hike in demand for labour, the youth employability for the forecast of 2022 is hopeful. Bio-technology, Big pharma and Polytechnic courses are also expected to rise in demand over the next year. Paired with technical and vocational training courses, the skilling across business verticals requires a unified approach to ensure that the vast talent pool is made available when demand strikes.

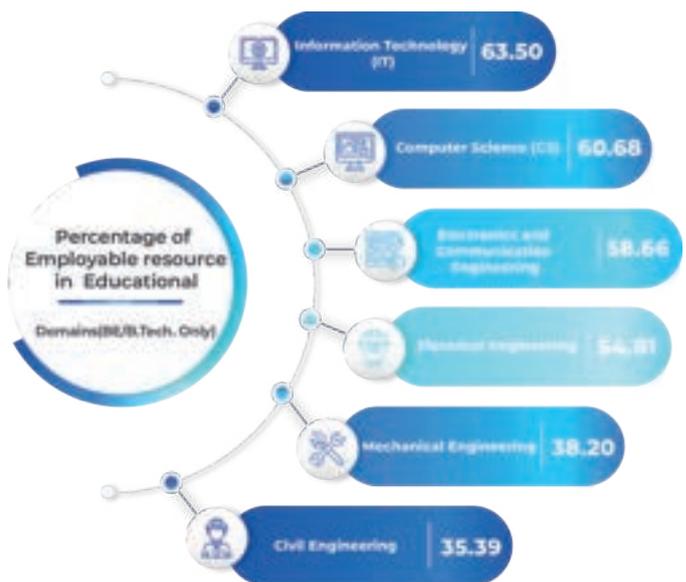
Furthermore, the domains **B.Com, B.Arts, MBA, and BPharma** also house a significant availability of job-ready youth, redirecting the focus on strategic decision making, creativity, subject knowledge and critical thinking. Companies in the coming year are expected to be more reliant on technology, requiring problem solvers and analytical thinkers to head business operations on the ground. With a healthy median age group, the industrial prowess of India will take flight, considering that skilling is identified as relevant to the emerging opportunities, and that infrastructural changes for policies are implemented to target holistic development, for building a futuristic workforce.

AGE GROUP WITH MOST EMPLOYABLE TALENT WAS IDENTIFIED TO BE BETWEEN 22-25 YEARS OF AGE - A PROMISING STATISTIC FOR YOUNG INDIA.

Domain - Wise Employability



Engineering Courses Wise Employability



States With The Highest Employability

Assessing the states with the highest employable talent across India, the top 3 states were found to be Maharashtra, Uttar Pradesh and Kerala. West Bengal follows as the fourth most employable concentration of talent. Karnataka, Delhi, Andhra Pradesh, Tamil Nadu, Gujarat and Haryana make up the remaining top 10 states for youth employability. This year, Kerala has emerged as a top 3 state for employability owing to the massive skilling drives of initiatives like ASAP (Additional skill Acquisition Programme), a Wheebox partner in presenting the ISR 2022 statistics for the next year.

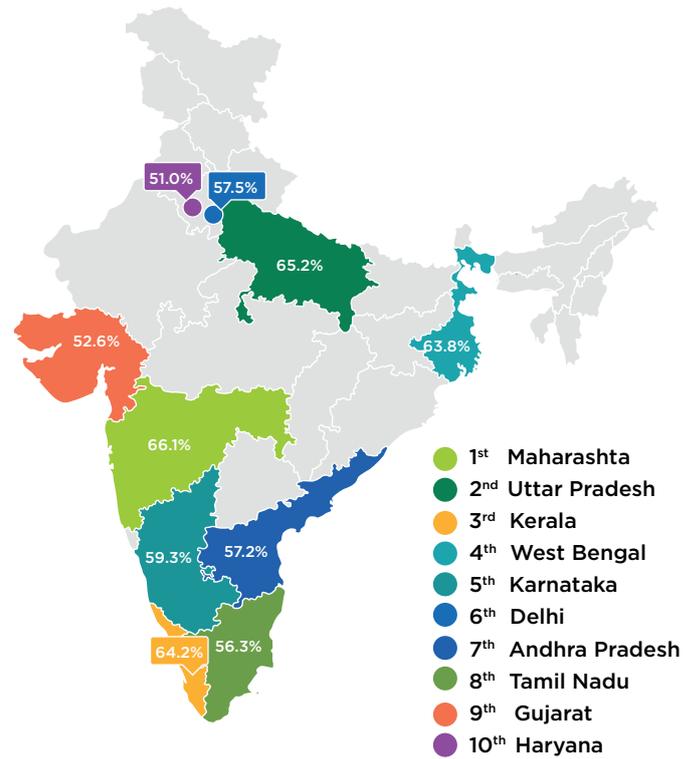
Job opportunities available in the states of Andhra Pradesh and Kerala are however a concern, owing to the massive influx of freshers and professionals to other tier 1 & 2 cities from these states. Maharashtra and Karnataka are further featured in the top 5 states to have the most employable resources from the BE and BTech domains. NSDC initiatives and PMKVY programs are a major boost for these states that are leveraging the public sector initiatives rather effectively. Telangana did not make the top 10 list despite having the highest number of female employable resources among all states. Additionally Rajasthan does not feature in this year's top 10 list of employable talent, however holds a top 10 spot for availability of numerical skills and computer skills.

States Lacking Opportunity for Aspiring Professionals

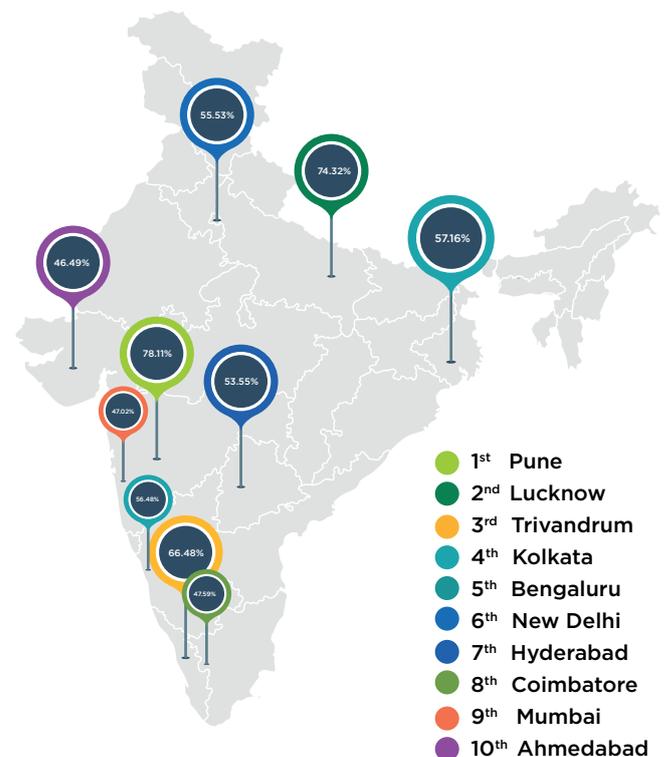
Kerala being a topper among employable resources available, the opportunities in the state are far behind these statistics. A whopping 15.77% unemployment rate during last year in the state was a huge concern. However, other tier 1 & 2 cities in India are witnessing a lot of candidates emerging from the state of Kerala in search of new job opportunities. The state also features in the list of top 10 states with availability of English as a second language. Considerably, the high unemployment rate between ages 26-29 are owing to the infrastructural capacities lacking in the major cities of Kerala, to accommodate the booming population. This teaches us that education alone is not enough and that more has to be done on the front of building infrastructure to accommodate the vast, highly employable youth of the state. Initiatives like ASAP Kerala have set up numerous affiliations and skill centers to tackle this issue, and have emerged victorious in placing Kerala as a state with a highly employable youth reserve this year.

Fun Fact: Bangalore city, the silicon valley of India is the most preferred place to work for both male and female candidates in India.

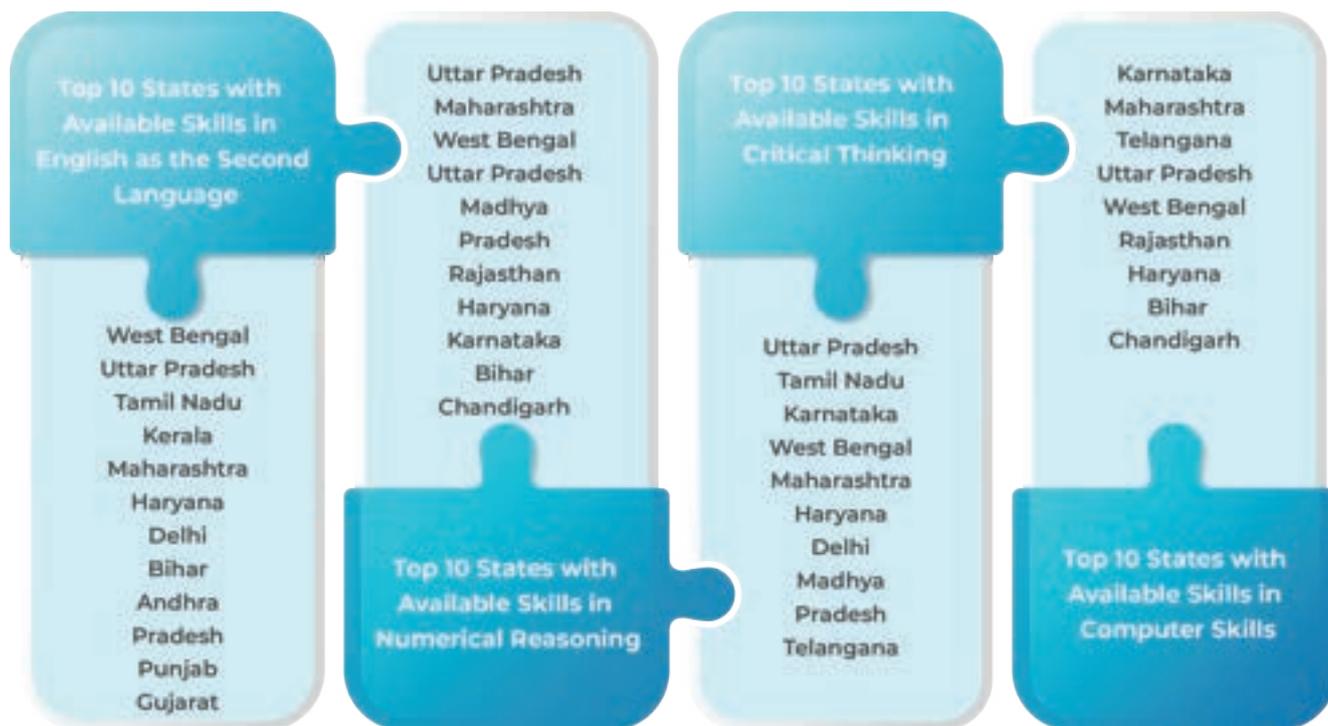
States with Highest Employability



Cities with Highest Employability



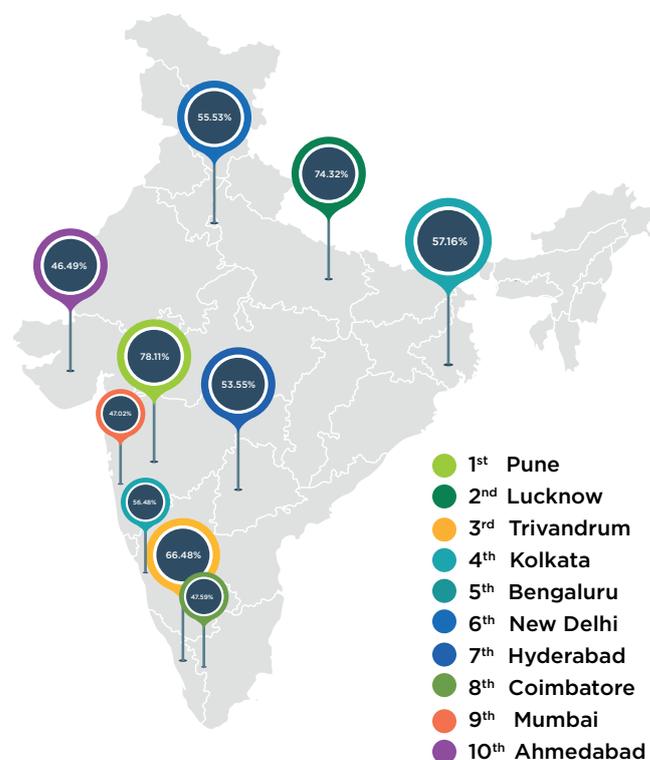
Skills Availability State - Wise



While studying the employability trends in major cities across India, it was identified that Pune, Lucknow and Trivandrum have the most employable youth talent among cities. Last year Hyderabad and Bengaluru topped the list, only to follow after Kolkata this year and make the list among the top 10 cities for youth employability

Further down the top 10 list comes New Delhi, Coimbatore, Mumbai and Ahmedabad. Upon further analysis, Bengaluru, Pune and Kolkata have the highest number of employable female resources, with Coimbatore and New Delhi following up to complete the top 5 cities for female employability. Pune, Kolkata and Bengaluru feature as the top 3 states with highly employable resources in the age group of 18-22, while Hubli, Bengaluru and Kolkata have the most available resources in the age group of 22-25. Bengaluru, Cochin and Hyderabad top the list for most preferred area to work by females, while Bengaluru, Chennai and Delhi are the preferred areas to work by most of the male youth. Kolkata, Pune and Bengaluru ranked highest for business communication and English, while Bengaluru, New Delhi and Trivandrum ranked highest for numerical skills. As for computer skills, Pune, Lucknow and Trivandrum top the chart..

Top Cities with Highest Employable Talent

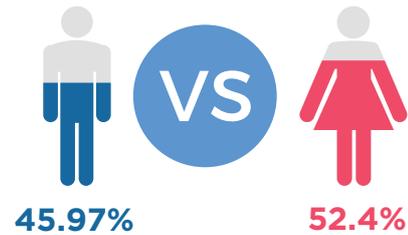


Gender Wise Employability

From this year's data comparing gender wise employability, it was recorded that the percentage of employable female resources was much higher. An increase to **55.44** of women youth were considered highly employable across all states and cities. The percentage of male employable resources stood at **45.97%**. The ratio of male to females at work, exclusively in the WNET test, revealed that the participation of women in the workforce is higher with 51.4% of test takers being employed. On the other hand, the male participation stood at 42.9% of test takers being employed. This is a landmark statistic that highlights the massive development index of India's position on female employability. However, the ratio of men to women across corporations signifies that more men are employed than women with just over 32% of women participation in the workforce as of 2021. The key takeaway is that more women are taking up jobs owing to the high employability rank of women in India, evident from the number of test takers who are employed, being more women. However, the positive hiring intent from the demand side data expresses that more women will enter the workforce to create a balance and take advantage of India's vast, diverse and able talent pool.



Gender Wise Employability in India



According to the United Nations, 36% of gender participation is due to the fact that over 2 billion women are employed in the informal sector, in areas of South America, Asia and Africa. With a highly employable youth population in India, the odds will be reversed in time. The increased number of women with access to quality education in India is a hopeful indicator of equal gender participation across diverse industries and sectors. Additionally, if the skilling ecosystem is leveraged to the fullest, a vast majority of informal sector workers will make their way to the formal sector or find self-employment a reliable source of living.

Telangana, Karnataka and Madhya Pradesh have the highest number of female employable resources, while Maharashtra, Uttar Pradesh and Kerala have the highest number of male employable resources. This year's test results revealed that cities like Bengaluru, Pune and Kolkata are rising in the number of employable female talent. However, comparing the top tier 1 & 2 cities in terms of available female resources, the uneven distribution of resources in highly developed areas are the cause for less employment for many women in the nation. For example, the survey revealed that Pune had a high employability score, with **78.1%** employable males and only **37.94%** employable females. That being said, the overall employability among women remains higher and should be leveraged in the coming year by the corporate and skilling initiatives pan India. Compared to last year, there are a number of new entries that have risen up the ranks to indicate the success of nationwide and state-run skilling initiatives. Numerous cities from Kerala and Tamil Nadu have featured in the top 10 cities with highly employable resources. Tamil Nadu is the state with the least number of employable female resources in this year's evaluation but has a huge share of male employability. Multiple cities from Kerala have showcased a drastic improvement in female and male employability, with a lot of talent to leverage in the coming year. Cities of Trivandrum, Kottayam, Ernakulam, Thrissur and Kozhikoe from Kerala do appear in the top 10 cities for available skilled talent.

Understanding Career Choices Early On

To decode the career decisions of youth entering into the workforce, we gathered insights on their preferred salary, place to work, internship inclination and more. When asked if the students had access to the right guidance and resources to make a well-informed career decision, a vast majority said yes. We also asked about their expectations from industries and skilling institutes and the following was observed.

88.42% of test takers were looking for an internship to kick start their career. The widespread access to the internet, local and central skilling activities and the massive hiring in top tier cities in India helped them choose their preferences in line with emerging trends. While Bengaluru was cited as the popular destination for youth to work, there are a number of factors why states like Kerala and Uttar Pradesh do not have a solid infrastructure to employ the vast talent available. Both formal and informal sectors of the economy should leverage the willingness and enthusiasm of the emerging talent market in India for sustainable infrastructural growth in the coming year, by improving infrastructural capacity in top cities as well as towns and suburbs.

Increased Access To Information

With the connectivity of the internet and the global attention on India's talent growth, there is a lot of room for the youth to explore new avenues and career paths. Paired with the rapid advancements in technology and emerging job roles, a vast majority of students find it hard to pinpoint the in-demand jobs. ISR 2022 aims to provide clarity on the latest trends and skill sets required to excel in Indian inc. The access to online skills and certifications are a strong premise to build a future-ready workforce. Hand in hand with state-run skilling institutes like ASAP Kerala and Central initiatives like Skill India Mission, the availability of career guidance is increasing.

The widespread use of social media for business purposes and entertainment is also opening up new opportunities in what is termed as the creator economy. Internet businesses are hiring more freshers and students with familiarity to the core concepts and necessary skills are in high demand. The ecommerce boom also furnishes numerous avenues for young aspirants to level up their careers. Additionally, the number of online portfolios being listed on CutShort, Naukri, Shine, LinkedIn and other sites is increasing, to showcase a growing interest in corporate India and the formal sector.

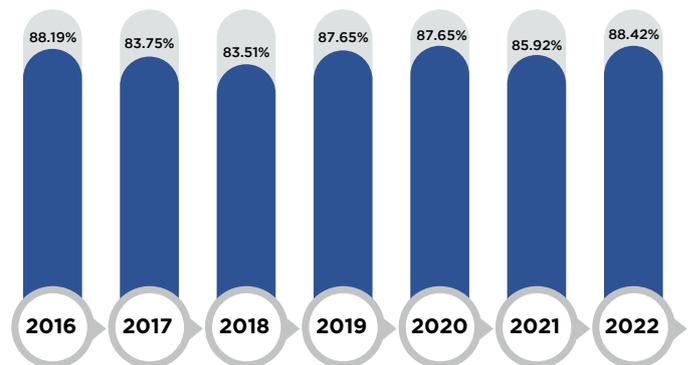
Freshers Seek Internship Opportunities

There is a major gap between the skilled labour available in India and the opportunities present in their immediate localities. Hence tier 1 & 2 cities are often the preferred job destinations. Although the vast availability of youth talent is an indicator of India's educational and skilling prowess, the lack of opportunity in many areas leaves a lot of the youth uncertain and unaware of career prospects.

According to the WNET survey, **88.42%** of test takers expressed their interest in an internship. If the opportunity was to be provided, they would be a productive addition to the formal sector of India. That's because a significant portion of the youth display highly employable traits. Furthermore, a positive hiring intent and substantially favourable demand for freshers will make opportunities more accessible in 2022. As is the case, the number of internships in India crossed 1 million in 2019, and post-COVID19 India is set for a massive comeback with the availability of opportunities for freshers.

Then again, finding a career is not the same as doing what you love. So students with keen interest in various fields of science and technology, arts and humanities should be offered a skill-driven ecosystem to nurture their abilities and chase careers that are fit for them. Undoubtedly, the focus on infrastructural development policies are meant to house this massive influx of youth talent in the coming years.

Preference For Internship



Internship Preferences State Wise

This year’s survey revealed the most preferred places to intern at for test takers of the WNET. The study showed that some states and cities in India were more favoured than others, and the reasons are obvious. These states happen to have better job opportunities and infrastructural capacity. Considering that most students in rural and urban regions are seeking opportunities, cities like Bangalore, Cochin and Hyderabad are their preferred destinations. Following are the internship preferences among states surveyed.

Among the states with the most number of students wanting to avail internships, Chandigarh, Haryana and Rajasthan topped the list. Punjab and Kerala followed to complete the top 5 places where students are actively seeking internships. According to the data, the lack of opportunities in these areas may cause a shift from people in these states to occupy tier 1 & 2 cities in the coming year.

94.12% of candidates from Chandigarh wanted to avail an internship, and among the top 10 the lowest number of internship seekers was from West Bengal with a strong 89.01% candidates actively seeking internships. This shows a job-ready youth, aware of corporate India’s demand and are looking for the first step to take in their careers.

Preferred Places For Work

Preferred Area to work by candidates

Tamil Nadu and Maharashtra were recorded as top preferred states to work for both male and female aspirants according to the survey. The increasing opportunities in Chennai and Coimbatore are a clear contributor to the awareness among aspiring professionals about the work situation in these areas. Both Chennai and Coimbatore appeared in the top ten preferred cities to work as well. However, Bangalore was listed as the top most preferred city for work, specified by most female and male candidates. Many male aspirants also cited any city among the top 10 states as their preferred areas to work.

Highest Number of Internship Seekers State Wise



Top 10 Preferred cities to Work by Male Users Across India



Preferred Salary Range

The gender pay gap stems from the difference in the number of men versus women who work. It also arises from differences in work tenures and the need for sabbaticals.

In a country like India, the reasons for gender pay gap are a little more complicated and can be linked to reasons ranging from the socioeconomic to the structural. Girls are sometimes kept out of schools or made to drop out of school early. Even if they are educated, many women are not allowed to work by their families. Women who do join the workforce often need to take extended leaves for maternity and child care, and even the healthcare of other family members.



Skills Investment In Most Employable States

Maharashtra

Maharashtra's GDP for the period 2020-21 was estimated to be around Rs. 32,24,014 crores. In the year 2015, the MSDE initiated a string of vocational and technical training programs to improve the quality of life in many regions across urban and rural Maharashtra. The Pramod Mahajan Kaushalya and Uddyokakta is a state run initiative aimed at skilling and job awareness in the state. As part of PMKUVA, the flagship program of the state provides skill training to youth in various vocational courses as well as technical courses through Industrial Training Institutes (ITI). An estimated 8 lakh candidates have been offered jobs through the program since its inception in 2015.

Maharashtra topped the list as the state with most employable talent with 66.1% of test takers scoring above 60% on the WNET. Furthermore, the state also features in the top 10 for English language skills, numerical reasoning, computer skills and critical thinking. Maharashtra also topped the list for highest employable talent in the age groups between 18-21, 22-15, and 26-29 respectively. The state was also the most preferred state to work for female test takers of the WNET. Maharashtra also has the highest test scorers from the BE/BTech and Polytechnic domains, which is a boost to the rising demand for talent in the state. Considering the rewards of government and private sector skilling activities, the employable youth talent is expected to take up new roles in various formal sector jobs over the next year.

Uttar Pradesh

The GDP of Uttar Pradesh is estimated to grow at a 6.78% increment between 2020-2021, reaching Rs.17.91 trillion by the end of 2021. With a contribution of over 8% to the national GDP, the state has a large population of skilled laborers and is also growing in IT infrastructure size. Software, business processes and electronics are top markets in the state. The initiatives of the UPSDM programme started in 2013 aims to provide training in electrical, construction, healthcare and wellness industries for youth in the state. The number of Skill Centres of Excellence in UP are also growing, branching out to rural regions as well as the urban center. India Institute of Skills in Kanpur merged with the Institute of Technical education of Singapore to further the pursuit of quality technical education and skilling in the area.

The MSDE approved a sum of Rs.208.04 crores for



skilling across the state of UP between 2016-2020, thus resulting in a 24% success rate of skilling the youth in the state. With over 660 training centers in the region, 42% of trained candidates were offered opportunities in special projects post their training period. The overall youth employability this year stood at **65.2%**. UP also appears in the top 5 charts for numerical skills, critical thinking, computer skills and business communication. The state is also the second most favoured area for male users to work. Polytechnic, MCA, BSc, BA, BCA and BCom students graduating from UP were also considered highly employable, with an increased availability of pertinent talent in the state. Uttar Pradesh comes second in the top 10 list of most available male employable resources, but does not feature in the top 10 for female employable resources. However, UP comes second in the list of top 10 states with a highly employable bracket between 18-21, 22-26, and 26-29 age groups, which is a massive impact of the statewide educational and skilling reforms over the past 6 years.

Kerala

Kerala came third in terms of states with the highest youth employability with **64.2%** of the candidates being highly employable. With an annual GSP of Rs.9.78 lakh crore, the state is the 6th largest contributor to the national GDP. Owing to the massive skilling reform from initiatives like ASAP Kerala, the overall employability among youth has skyrocketed compared to last year. ASAP Kerala has managed to utilize its partner network and Skilling Parks to provide skill enhancement to 251,242 students since 2012. This is a massive achievement for the state, considering that the employable ratio between males and females has also improved drastically.

Featuring in the top 10 states for English language skills, Kerala is however not in the top 10 for computer skills, numerical reasoning or critical thinking. On the plus side, numerous cities from Kerala feature in the top 10 cities for available talent in the ages of 18-21, 22-26, and 26-20 respectively. Considering Kerala features the most number of cities for available resources from any state in this year's report, the skilling ecosystem and educational efforts are on the right track. Kerala also comes third in the list of top states with male employable resources, and 4th in terms of availability of female employability resources. Most freshers from Kerala also express their interest in availing internships in an attempt to steer their careers, considering that the vast employability of the state is not backed with the same opportunity immediately available. Kerala features as the top state for people seeking an opportunity that pays anywhere

between 0-2, and 2-2.6 lakhs per annum. A majority of Kerala's youth featured in the top 10 list for states who scored 60% in the B.Arts, BCA and BSc domains.

West Bengal

With a massive 12.58% contribution to the national GDP over the past 4 years consistently, West Bengal gathers a GDP of Rs.12.54 lakh crore on average annually. The state run Paschim Banga Society for Skill Development is focused on providing education and training for skill development in the region. Another scheme, Utkarsh Bangla Scheme by the CM of West Bengal aims to train 6-8 lakh candidates each year. With Rs.1,106 crores sanctioned for skilling in the state during 2020, the results have emerged with a stunning improvement in the overall youth employability. Additionally, state-run initiatives have managed to place over 3 lakh candidates through Skill India Mission in West Bengal.

West Bengal scored an overall **63.8%** availability of highly employable youth resources in the WNET test. The state tops the list for skills available in English and features in the top 10 states for numerical reasoning, computer skills as well as critical thinking. However, West Bengal did not appear in the top 10 states with availability of talent in various age groups from 18-29. Instead, Kolkata city has a high percentage of male and female employable resources that can be leveraged. This is an indication of the skill gap that emerges as we transition from tier 1 & 2 cities in India, towards the more remote regions of the state. West Bengal tops the list for percentage of users with a computer at home, which will be a positive influence as the state adopts more IT infrastructural development activities.

Karnataka

Karnataka is flourishing with urbanization and attracting a lot of foreign interest with Bangalore in particular being the Silicon Valley of India. The GDP of Karnataka is estimated at Rs.18.06 trillion between 2020-2021 and is expected to grow rapidly in the coming financial year at an 8.2% tangent. With 55% of the state's population in the working age group of 20 to 59 years, Bangalore is a city that is also preferred most by candidates seeking job opportunities. The Chief Minister Kaushalya Karnataka Yojane skilling initiative in the state pledged to skill 25,000 women workers from rural communities by the year 2025. Additionally, about 4 lakh candidates were trained during the period of 2016-2020 by the PMKVY government scheme. As a fast growing trade and IT hub, the state has secured a high employability percentage among the youth this year.

59.3% of Karnataka's youth were found highly employable in the WNET test. With Bangalore as the most preferred place to work among male and female candidates, the hiring intent over the next year will accelerate employment opportunities made available in the state. Karnataka tops the list of states with computer skills, and features in the top 10 for numerical reasoning and critical thinking. However, the state does not appear in the list of top 10 states for business communication and English. 93.43% of users from Karnataka have a computer at home, reflecting a position as the state with the best computer literacy. Karnataka tops the list for MSc and BCom graduates who scored above 60% on the WNET test and features second for top states with BE/BTech graduates scoring above 60% on the test.

Delhi

With a GDP ranging from \$210 billion to \$369 billion variably, Delhi is the second most productive metro in India. The capital city is rapidly growing, although it could not make the top 5 for youth employability and came 6th instead. Various programs like Delhi Skill Development Programme (DSDP) by the Department of Social Welfare, NSDC partnerships, and PMKVY activities are responsible for generating a highly employable youth demographic. Approximately Rs.54,66,00,600 has been sanctioned between the period 2016-2020 towards Skill India Mission.

With a youth employability percentage of **57.5%**, Delhi also features 6th in the top 10 states for critical thinking and English skills. New Delhi city on the other hand, comes in 2nd for skills available in numericals and 6th for skills available in computer literacy. The state also comes in the top 10 for most number of male employable resources, standing at **37.96%**. However, the availability of youth female talent is in the range of **19.41%**. New Delhi comes third in the most preferred places to work among male and female candidates. Delhi tops the list for number of MCA and BCA students scoring above 60% and features second for BBA and BA disciplines found highly employable and available.

Andhra Pradesh

Andhra Pradesh is growing in its social, industrial and technological infrastructure over the past 4 years, and features 7th in the top 10 for most employable youth talent. With a GDP of Rs.9.72 lakh crore annually, that equals to \$140 billion and is growing at 12.73% in 2021. Andhra Pradesh State Skill Development Corporation (APSSDC), founded in 2014 aims to boost employability

in the state through skilling initiatives. In line with local businesses and foreign investments, the initiative aims to provide training and placements for candidates across various disciplines. Furthermore, the PMKVY initiatives have been going steady with an amount of Rs.35,52,79,392 being sanctioned between 2019-20 alone. Approved by the MSDE, the skilling initiatives have placed up to 60% of candidates in short-term programs while 40% took up special projects with job security.

Andhra Pradesh has a youth employability score of 57.2% this year, and features in the top 10 list for English skills available. AP also features in the top 10 states with employable resources in the age group of 18-21 and 26-29. This is clear offshoot of the focus driven through skilling initiatives across the state in just the last 5 years. 86.32% of candidates from Andhra Pradesh have a computer at home, and the state appears in the top 10 states preferred to work by male candidates. Andhra Pradesh also features in the top 5 states with users scoring above 60% from the domains, BE/BTech & Polytechnic.



Tamil Nadu

The Tamil Nadu government has formed the Tamil Nadu Skill Development Corporation (TNSDC), with an aim to harness the vast youth talent of the state. Until 2020, an estimated 3 lakh candidates have been trained with

vocational and technical training programs. Other initiatives by the state include ICT Academy of Tamil Nadu started in 2009 to bridge the gap between talent demand and supply in the fast growing cities of Chennai, Salem and Coimbatore and others. With focus on entrepreneurship, skilling, youth empowerment and industry-institute interactions, the skilling ecosystem in Tamil Nadu has been bringing a lot of positive results. The state was featured among the top for most number of male employable resources.

Tamil Nadu also features in the top 10 states with employable resources in various age groups from 18-21, 22-25, and 26-29. The state bagged a top 3 out of 10 position for the availability of English language and business communication skills. 56.3% of the test takers from Tamil Nadu scored above 60%, adding to the employability index of the state. Cities of Chennai and Coimbatore featured in the top 5 most preferred areas to work by candidates from all across the nation. Owing to the rapid urbanization in Tamil Nadu, the skilling ecosystem is evolving and the state is attracting a lot of foreign interest. Tamil Nadu featured in the top 5 states for students in the following domains scoring above 60% on the WNET, including BE/BTech, Polytechnic, ITI, MCA, MSc, MBA, BA, BCA, BCom, BSc and BBA, being the only state to secure highly qualified youth employability in all disciplines. Additionally, an amount of Rs.68,86,21,441 has been released for 14 sectors until 2020 as part of the PMKVY scheme, between the sanctioned period of 2016-2020. 55% of short term trainees gained employment in 450+ institutes as a result by 2021. Tamil Nadu also featured in the top 5 states where candidates were seeking work for a remuneration between 0-2, 2-2.6 as well as 2.6 and above.

Gujarat

Gujarat is an industrial paradise of India, with an estimated GDP growing at 12.87% during the period of 2020-2021, reaching Rs.18.85 trillion, which is \$269 billion annually. With various projects under the Skill India Mission, bodies like Gujarat Skills Development Mission (GSDM) and PMKVY have found immense success in the state since flagship programs were designed to address the skill gap. With funds worth Rs.1573 crore being released under the DDU-GKY scheme annually, 5+ lakh candidates were trained until the 2020 year end. Among the trained candidates an estimated 1 lakh people belonged to scheduled tribes. Additionally, the skilling ecosystem over the past 4 years has projected a total of 2,39,202 placements across various industries and disciplines. A sum of Rs.1573 crores was further allocated by the

central government to continue the skilling activities state-wide in 2021.

In the WNET survey, it was identified that 52.6% of test takers from Gujarat were highly employable, scoring above 60% on the test. The city of Ahmedabad also features in the top 10 list for skills available in numericals, critical thinking and computer skills. Furthermore, Gujarat was found to have 50.01% of employable resources in the age group of 26-29, making the top 10 for this category. Gujarat also topped the list for MBA, BBA and BA graduates who scored above 60% on the WNET. Gujarat features in the top 10 for candidates willing to take up work for a remuneration between 2-2.6 lakhs per annum. With the availability of male employable resources at 41.61%, the state appears in the top 10 list for available male talent. However, a mere 15.88% of female employable resources were identified when assessing the test results.

Haryana

Replacing Telangana from last year, Haryana takes over with an impressive youth employability score to seal the top 10 states with high youth employability. Owing to the ramp up of Haryana Skill Development Mission activities in the state, the overall employability and opportunities have also risen at a steady pace. Growing at 12.96%, the economy of Haryana estimates a GDP of \$85 billion and secures a top 10 spot for top states with English skills, critical thinking skills, computer skills and numericals. The state is the second state in the top 10 to secure a spot in all of the assessed criteria for available skills. This is backed by an impressive percentage of female employability statistics.

Haryana also features in the top 10 preferred states to work by both male and female candidates. Haryana comes 2nd in the list of top 10 states with candidates who have a computer at home with 96.66% of candidates having access to a computer at home. The state also comes second in the list of states with candidates seeking internships to jumpstart their career. With 38.2% male employable resources and 22.21% female employable resources, Haryana comes in the top 5 for gender wise youth employability.



ACADEMIA SPEAKS

Academia Partner



Sunstone Eduversity is a higher education organization committed to providing accountable and industry-integrated education in partnership with 24+ campuses, spread across 19+ cities in India. Sunstone is focussed towards providing students with the best-in-class education, thus subsequently creating future leaders and professionals for corporations.

Sunstone Eduversity expands employability avenues by upskilling youth

While statistics show a leap in the number of high schools and college graduates, there is a slump in the employability index of Indian youth.

Institutes struggle to prepare their students to battle the challenges of the business world. Their curricula often reflect outdated course material, irrelevant to the ongoing happenings in the industry, leading to a severe dearth of employable talent across India.

Top companies in India are also adopting new recruitment strategies centred around specific soft skills like communication, agility, proactiveness, and empathy. However, institutes seldom educate their students on these significant parameters. Eventually, this gives birth to the need for upskilling students to prepare them to drive organisations forward.

Sunstone Eduversity caters to all these fronts by marrying technical knowledge with practical application of the same. Sunstone breaks through the barriers of traditional modes of education and goes beyond the confines of the basic classroom by adding experiential layers for holistic development.

Founder's Vision



Piyush Nangru

Co-founder & COO
Sunstone Eduversity

“Sunstone believes that student success needs to be brought to the forefront. This is achieved by building high impact elements such as learning systems, training and placements programs, and student experience, on top of the existing low impact layer of basic infra and generic curriculum.

Piyush Nangru, co-founder & COO says, “Sunstone exists to deliver success to every student and to empower them to take charge of their careers. The core value that we refuse to compromise on is our commitment towards taking complete accountability for every student’s success. Our students are spread across the country, and our tech-led processes and partnerships with existing campuses pan-India through an asset-light model help us expand to new geographies efficiently. We envision celebrating 200,000 students journeys and being the largest hiring partner for top 50+ corporate partners.”

Sunstone infuses purpose and aim into education thus making it relevant and tailored as per the industry demands. We strive to deliver best-in-class education to students, and professionals to corporations. ”

Education that works

Sunstone Eduversity integrates immersive and actionable learning to drive outcomes and construct customised students' learning experiences. Moving beyond the bounds of traditional pedagogy, Sunstone employs a tailored approach that offers:

- **Industry-relevant curriculum:** Industry-aligned courses developed with leading experts from different domains.
- **Internships:** 6 months internship that offers industry exposure to students prior to placement.
- **Tech-led approach:** Our tech-first approach equips our students with the knowledge of necessary tools required at the workplace.
- **Industry immersion:** Hybrid training and boot camps delivered by industry leaders to create job-ready professionals.
- **Breaking the confines of the classroom:** Elevated student experience consistent across all campuses in the country.

Sunstone uses the globally leading learning management system - Canvas, which is tailored to provide each student with a customized learning path, remedial modules, and personalized feedback. A centralised placement hub opens up 20x more job opportunities across 1000+ recruiters already on board.



Although freshers are often defined by their inexperience, Sunstone prepares students to be job-ready right on the first day of work. The following training features are what make students industry-ready on the first day of their jobs:

- Real-time feedback from industry
- Modular training and development lessons
- Improving their employer engagement work
- Technology-led pedagogy
- Life long placement support

A curriculum that develops “system wide thinking”

Offering hands-on practical approach, Sunstone equips students to excel in various job roles. To ensure that students hone their skills as per the demands of the industry, the curriculum is refined twice a year by Sunstone's faculty members in conjunction with industry experts.

Sunstone encourages students to push across boundaries by preparing them for challenging job roles. This is achieved through intense training programs which instills problem-solving, result-oriented and a pragmatic sensibility in students.

In practise, as a part of this approach, Sunstone's students undergo a rigorous curriculum of 40+ subjects and 1500+ hours of training that inculcates both technical as well as cognitive skills driving holistic personality development.

Creating employable professionals to bridge the employability skill gap forms the nucleus of Sunstone's mission. The path to actualising this goal is paved by numerous players in Sunstone's ambit.

Tailor made solutions for your hiring needs

Having recently launched the Advisory Board, Sunstone has brought into its fold educationists, industry representatives, army personnel and skill experts. This board consists of the best minds in the corporate space who guide and assist in designing Sunstone's program structure and course content, thus creating erudite and employable young professionals.

Hire-Train-Deploy

The **hire-train-deploy** model has been actively adopted by Sunstone which ensures a dedicated focus on domain-specific and role-specific training. This grants recruiters the space to deploy professionals from Sunstone as per their requirements. The hire-train-deploy model operates in three steps:

1. A preliminary screening of the hires is conducted.
2. An abridged training program for domain-specific, and an extensive training program for role-specific training is administered.
3. A professional is hired from Sunstone.

Sunstone focuses on providing all its students with appropriate opportunities by bolstering them with skills relevant for the industry. This is achieved through a great mix of training boot camps, internships, and industry exposure. Our 147% placement rate is a testament to the same.



Sunstone Eduversity Placement Record

Industry: One of India’s leading Big 4’s

Challenge: The organization was looking to hire fresh talent with a very specific technical skill set in the field of cloud computing and management. They wanted to ensure the new hires could hit the ground running from day zero.

Solution: Sunstone Eduversity picked up 50+ top management students and geared them with technical skill sets required for this particular hiring need. This not only helped the organization save time and money but also offered the students a guaranteed placement with a reputed organisation.

A pivotal challenge that was overcome by Sunstone Eduversity



“ The wheebox employability test is a step in the right direction. More and more such steps are needed to bridge the gap between the employment seekers and the employment givers. I congratulate Wheebox in doing this work and making it possible for graduates to find out facets where they need to improve upon. ”

- Prof. (Dr.) Neharika Vohra

Vice Chancellor, Delhi Skill and Entrepreneurship University

“ The India Skills Report is an extremely important benchmark to help us measure and evaluate progress against this challenge because if we can't measure it, we can't fix it! As it shows, with an employability index of only 37.2%, these problems left unsolved will only get worse and pose a great threat to India's future. ”

- Koushik Chowdhury

BIT Mesra



“ Our Higher Education System needs to be reimagined. We need to develop students who develop their capacity to learn through introspection, reflection and source the child like curiosity within themselves to acquire the skills needed for the new world. Even as we learn how to deploy artificial intelligence, robotics and machine learning and embrace the power of big data and digital, we have to develop empathy, and mindfulness so that our students think holistically and work to make our world better. We need to free our higher education system of all controls and make this sector attractive for investments by the world's best universities. India will never become a developed country unless we completely reform higher education. ”

Dr. Shankar Subbanarasayya Mantha

Ex-Chairman AICTE and Emeritus Professor at VJTI



“ In the last many years, India Skills Report (ISR) has been a source for all stakeholders, mainly industry, academia, regulatory bodies, skilling experts and policy makers for taking forward the vision of Skill India. The report covers details on various types of assessments required as per Industrial Revolution 4.0, especially functional assessment, cognitive ability assessment, behavioral assessment, employability skill ability and psychometric assessment. This also covers details about best practices being adopted by various organizations and leads to development of civic, social and personal responsibility among youth of the country. The aim of the report has to be a motivational guru for all, so as to bridge the gap between academics and industry by providing self-assessment for 21st century skills capabilities for global competitiveness.”

- Dr. Ashwini Kumar Sharma

Vice Chancellor – Symbiosis Skills
and Professional University

“ Each year passing, ISR is getting enriched with its content and coverage by encouraging wider participation of institutions. It has created a great deal of enthusiasm among the stakeholders eliciting an encouraging response. I am sure it will be more enriched in times to come. On this occasion, I congratulate the Wheebox team and other members from the partnering institutions such as AIU, CII, LinkedIn, and People Strong for making it happen.”



Dr. Kishor Buddha

Director GCGC, GITAM, Bengaluru



“ India Skills Report is a wonderful initiative by Wheebox in association with CII, . It has been carrying out comprehensive analysis and reports over the past eight years in the field of Higher Education. The report highlights the standard of the employment skills which is very useful for the younger generation joining the workforce. The analysis of the Wheebox National Employability test gives the reader an understanding of the employability levels of students undergoing varying courses, state-wise openings and opportunities regarding Internships, skill level training. All in all, a wonderful report that I look forward to every year along with so many graduates.”

Dr. Aditya Sharma

Registrar Teerthanker Mahaveer University



DEMAND STORY
INDIA HIRING INTENT: EARLY CAREER EDITION



The Evolving Job Market

Amidst rapid technological advancement and data driven marketplaces there is a rising demand for fresh talent across various industries. Notably, digital transformation is on the agenda for enterprises of all sizes. From local retailers leveraging search engine visibility to the home-grown products hitting the global market, the tech landscape of India is emerging as a global contender to enable ease of business. However, the grueling impacts of COVID-19 have slowed employment intake and retention by a large margin during the 2020-2021 period. Although 2021 started on a positive note, the April to June window was a set-back owing to the 2nd wave of COVID-19. Reportedly, in October 2020, the CMIE stated that total employment stood at a meagre 37.8% for months on end. However, India inc has been back on track ever since with a surge in demand for candidates early on in their careers. The demand from various industries, especially in the IT, Pharmaceutical and Healthcare, E-commerce and BFSI sectors have grown and Engineering domains revived their interest in freshers over the past 12 months. This steady climb is an offshoot of the pent-up demand, which has been complemented by the availability of increasing number of digital roles cutting across functions and industries. Invariably, the negative impacts of the pandemic taught industries that retention was more important than layoff.

The India Hiring Intent survey - Early career edition revealed some promising results for the overall expected hiring pattern in 2022, covering 150 corporates from 15+ industries pan India. The results show that there is a huge demand for early career professionals i.e. individuals with less than 5 years of applied work experience.

The increased hiring for youth talent is owing to the availability of technology skills pertinent to various job disciplines, which is a rising requirement across all industries. Corporations of all sizes are investing in process automation and digital tools to improve their go-to market strategy and this gives rise to the demand for more qualified labour in software product engineering and ecommerce practices. The Pharma and BFSI segments are also benefiting from digital transformation, and these industries are also on the lookout for candidates early on in their careers. Technology as a skill is going to remain in demand and the demand will cut across functions and industries alike. While in May 2020, more than 100,000 salaried employees lost their job, just within 3-6 months of the start to 2021, enterprises resumed hiring. When remote work is still on the agenda for many organizations, the new year is expected to bring fresh workplace dynamics. Corporates are reinventing the policies around the successful vaccination drives, and expecting to hire more workers in the coming year.

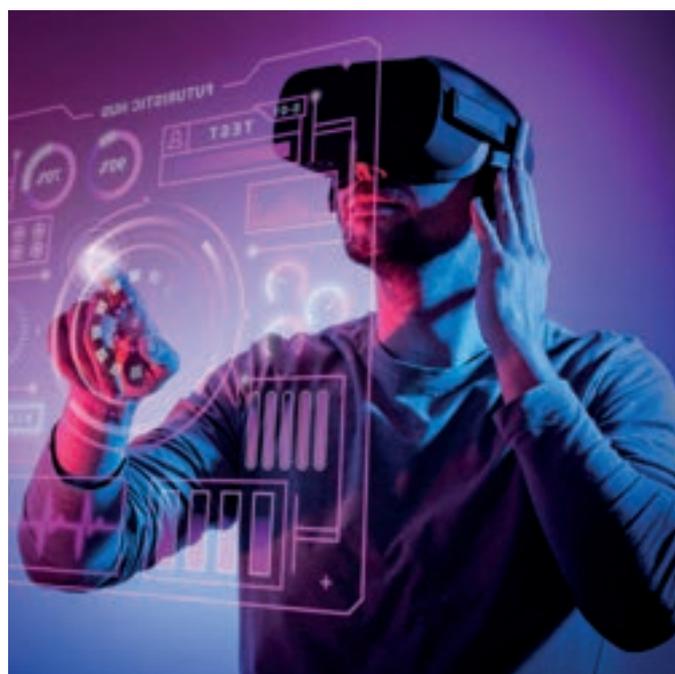
Steady Increase in Foreign Interests

Venture capitalism and holistic upskilling are propelling the startup ecosystem, with more native companies listing on International Stock Exchanges than previous years. From acquisition to knowledge and the exposure to the latest job trends, candidates are now prepared with the digital and practical tools to scale new horizons. Data scientists, database managers, marketing managers, content creators, communication designers, product engineers, coders and team managers are all in huge demand as we enter into the dawn of a new year. Foreign investments from conglomerates like Amazon, Walmart, Tesla, Google, LinkedIn, Toyota and Facebook are just the beginning to a long list of investors creating waves in India's economic and employment landscape. The famed admiration of home-grown tech solutions like Lenskart, Oyo, Swiggy, Zomato, Byju's, Whitehat Jr, UpGrad, Freshdesk, CRED, Ajo, Myntra and numerous others are revolutionizing the approach to modern day jobs with focus consumer experiences. For this, people skills are vital. The government schemes to privatize energy, agriculture and raw materials are taking India into a new chapter of accountability in the rise to global dominion. Centralizing government documentation and social security measures have improved in scale, with more data available on the demographics of India's working and nonworking population than ever before. This calls for analysts and strategists in pivotal organizational roles to steer modernization forward. The access to online resources and esteemed overseas educational institutions are widening the horizons for the average Indian student. More professionals are investing in online skilling activities and webinars than any chapter in the history of the nation. Networking has become seamless and this improved connectivity is leading to a more accessible, retainable and flexible workforce model comprising global talent strategies leveraged by Indian enterprises. The number of planet friendly mobility solutions like electric bikes and vehicles are gaining prime importance among a climate conscious populace, aware of the extreme weather events that are becoming more frequent nowadays. Investments from companies like Tesla in India are a hopeful indicator of upgrading the automotive and energy sector in the country. Furthermore, local initiatives like Ola electric scooters, Ather and others are pushing for more qualified labour in the field of electronics, energy and mechanical engineering. The increasing demand for qualified labour can be complemented by the 48.7% strong employable youth of the nation for next year's forecast. However, education is not the only answer.

A New Age of Skilling

With rapid advancements in technology, new forms of skilling are emerging. In a world run by data, the industry's decision makers will no longer hire based on qualifications but on skills like problem-solving abilities, communication and project experience. Notably the hiring across Pharma and healthcare has sped up and so has the need for more qualified engineers to perform backend and frontend operations. The introduction of cloud technologies and AI have introduced a more interconnected enterprise where machines can perform tasks and humans make the key decisions. But for this model to take flight in a country like India, there is a significant requirement for generating awareness and familiarity in the latest digital trends, tools and industry best practices.

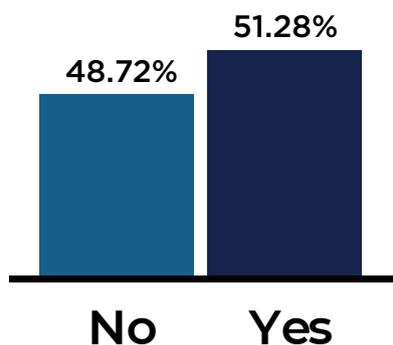
Among the 150 corporations surveyed across 15+ industries and sectors, the biggest revelation was that **75%** of corporate leaders express that there is a skill gap in their industry. To bridge the gap and emerge contentious in the global trade of resources, we must first identify the root problem and incorporate reforms that are based on crucial data. The India Hiring Intent Survey - Early Career Edition aims to provide this intelligence to industry leaders, academia, working professionals and students to take prompt action and prepare for the age of digital acceleration. In the following sections we uncover key insights from the India Hiring Intent Survey- Early Career Edition results. We also explore the views of industry leaders on the nature of an evolving job market, in-demand skills and types of opportunities that will shape the future.



A Positive Hiring Intent for Freshers Wins Over the Pandemic

Compared to last year, this year's employment statistics show that there are more freshers currently employed in various companies as opposed to before. The demand for fresher's has also gone up since last year. The biggest demand across industries is for candidates with 1-5 years of experience, early on in their careers. Especially in the IT/ITes, Internet Businesses, BFSI, and Pharma, an influx of fresh graduates are expected over the next few months. The hiring of freshers is expected to rise to **21.13%** demand and **34.65%** increment is expected for professionals with 1-5 years of work experience from 18% and 30% respectively. Engineering, BE/BTech graduates are in the highest demand while BA/BCA/BBA/BCom and other graduates come second. In 2022, the revived hiring trends post-COVID-19 is expected to open new doors for job seekers with upto 5 years of work experience.

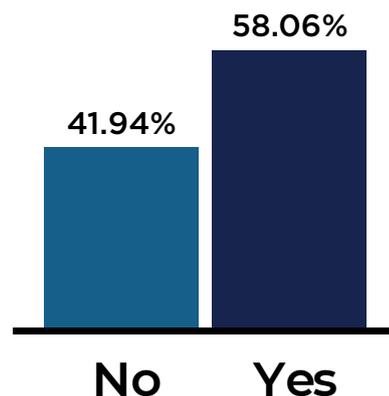
Are companies hiring from Govt. skilling ecosystem?



Hiring Intent from Government Skilling Initiatives

Owing to the skilling ecosystem's success over the past 5 years, industries are looking to leverage candidates undertaking government led skilling initiatives. The technical and vocational skills required are imparted in almost every state across India by initiatives like SANKALP, PMKVY, ASAP, MSDE, AICTE, Sunstone Eduversity, etc. As a result, more than half of the employers surveyed (**51.28%**) are considering hiring employees coming up the ranks from these government skilling initiatives. Reportedly, the surveyed companies are satisfied with the quality of human capital trained and deployed by the government led skilling initiatives. This is a huge win for the tireless efforts of people and partnerships that are driving India's skilling ecosystem.

Are hires from Govt. skilling centers matching your expectations?

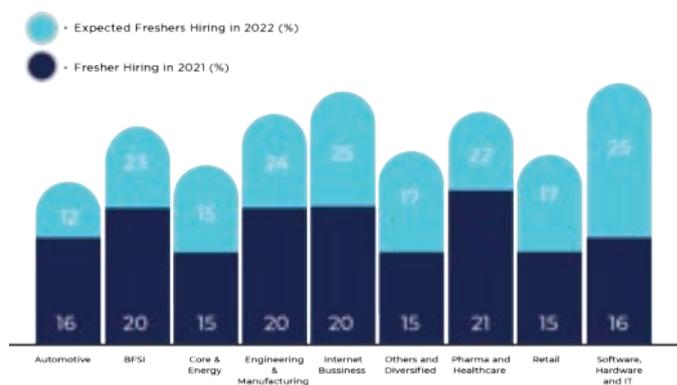


Who is Getting Hired?

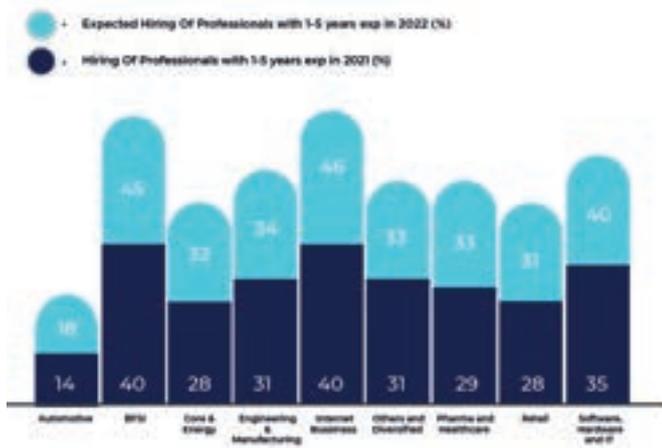
Engineering graduates are in high demand, making up the biggest share of next year's corporate wishlist. The demand for computer science graduates, electronics and communication graduates, Information technology graduates and mechanical engineers are surging consistently. The growth of the IT and E-commerce sectors in India are expected to recruit more early career professionals in the coming year. Compared to the number of freshers demanded by industries in 2021, this year the demand for talent has risen to 21.13% from around 18% in 2021, and the need for experienced professionals with up to 5 years of work experience is expected to go up by 35% in 2022 from the 30% recorded in 2021.

The increased adoption of digital transformation and innovation in new technologies, are all attributing to the dramatic demand for tech talent across all industries in the coming year. However, there is expected to be a slight decline in the demand for management professionals owing to the seasoned professionals occupying strategic roles in many companies. Since there is a need for digital skills, the hiring of candidates graduating in the MTech domain has increased, since they are expected to have a familiar knack for the emerging digital technologies.

Demand For Freshers Across Industries



Demand For Professionals With 1-5 Years Experience Across Industries



India Inc stated that hiring professionals in their early career is a go-to option for the roadmap to 2022 and beyond. The expected hiring mix of employees is highest for applicants with 1-5 years experience. Internet businesses top the list for hiring candidates having 1-5 years of experience. As per the surveyed companies in the internet business sector, 46% of the new hires are expected to be in this category, making this a top priority. Software, hardware and IT comes next for this experience bracket with 40% expressing the intent to hire candidates with 1-5 years of experience in the coming year. Hiring of freshers is particularly dominant in the IT/ITES industry, where 25% of the new hires in 2022 are expected to be freshers. As India makes its position stronger, as the back office of the world, and new companies set up GICs, the demand for tech skills has gone up manifold. Thus, Indian IT is paving for skills and investments in building a talent pipeline of early-career professionals.

Accelerating the Demand for Technology Skills

Hiring from the BE/BTech domain and candidates with engineering backgrounds are expected to ramp up in the year 2022. This is owing to the technical skills and project development requirements of organizations adapting to the digital age. 34% of industries surveyed expressed their inclination towards hiring candidates with an engineering background and the demand was highest in the automotive sector with 65% positive intent.

The auto industry too is moving towards EV, requiring a combination of IT and manufacturing skills. Automobile and allied companies are also looking to build this talent by investing in early career professionals. The demand for engineering talent is growing steadily and the trend is expected to continue in the coming year. The IT/ITes

sector is closely followed by Internet Business, BFSI and Pharma sectors in driving the demand for talent with no experience.

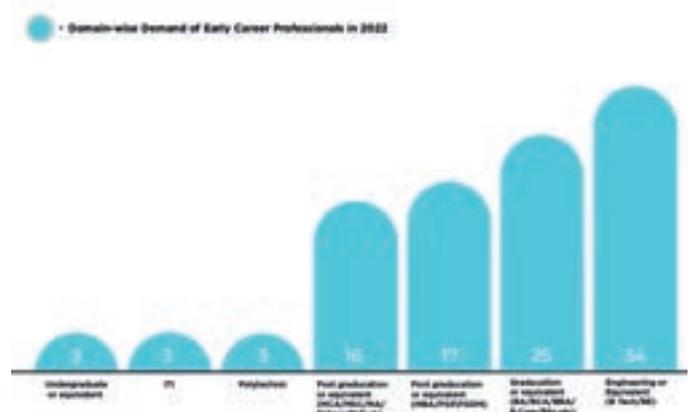
The high demand for Engineering students shows an upward trend for youth employability in 2022. IT and Tech expresses the second highest demand for Engineering students at 46% positive intent, following the automotive industry that prefers 58% of their new hires to be engineers. Logistics sector is expected to hire the most number of graduates, with 35% of the new hires coming from this domain. This is a direct result of the widespread use of ecommerce, drop shipping and infrastructural developments that empower retailers with more online traffic, foot traffic and prime localities to move their goods.

Pharma & Healthcare, Core and Energy, and Internet Businesses are also expected to ramp up hiring with a 27% growing intent to hire graduates or equivalent. In 2022, the demand for MBA graduates is expected to be driven by Pharmaceutical & Healthcare companies, closely followed by companies in BFSI.

As per the India Hiring Intent Survey - Early Career Edition, companies in Automotive and Heavy Engineering and Manufacturing sectors expressed their keen interest in hiring post-graduates, preferably MCA, MCom, MSc, MA and MTech, accounting for around 17% of the new hire mix. This can be because of the increasing influence of automation in these sectors. The new jobs need to be filled by highly skilled technology-driven professionals, capable of overseeing the increasingly sophisticated production environment.

The available talent supply in the nation is promising. Candidates who are starting out or who are early in their careers are in demand across industries as Indian industry 4.0 gears up to invest in building the talent pipeline of the future.

Domain-wise Demand Analysis of Early Career Professionals





Domain-wise Demand of Early Career Professionals in 2022 Across Industries

Industry	Undergraduate or equivalent (No.)	Diploma	Polytechnic (No.)	Post graduation in Information Tech. & IT (MCA, PGDIP, PGDCA)	Post graduation or equivalent (MBA, PGP, PGDCA)	Graduate or Graduate level (B.A., B.Sc., B.Com., B.B.A., B.L., B.Ed., etc.)	Engineering or equivalent (B.Tech./B.E.)
Automotive	0	1	1	17	13	10	58
BFSI	3	2	3	16	18	24	34
Engineering & Manufacturing	3	8	8	17	14	25	25
Internet Business	3	3	2	15	18	27	32
Core & Energy	2	3	2	13	15	27	35
Others and Diversified	4	3	4	14	17	26	30
Pharmaceutical & Healthcare	5	4	3	16	19	27	25
Retail	4	4	7	15	15	25	30
Software, Hardware and IT	0	0	0	15	15	24	46
Overall Total	3	3	3	16	17	25	34

Fun Fact: 75% of employers identified a skill gap in their workforce entering into 2022.

The Skill Gap Deficit

Out of the 150 corporates surveyed, 75% expressly stated that there was a skill gap in their workforce. Emerging into the new wave of job opportunities in this decade, this showcases the lack of awareness about current job roles and requirements among the youth newly entering the workforce. However, 25% stated that there was no skill gap identified. In the IT and Tech industry 80% of employers identify the skill deficit as a problem, and among Engineering & Manufacturing employers, 80% agree with the skill gap deficit. This is an indication of the changing technologies and practical exposure that is required to excel in these fields. Additionally, 67% of BFSI employers also reported a skill gap deficit. The least deficit was visible in the Pharma and healthcare sector with 50% still voicing their concern over the skill gap. The skill gap was maximum in Retail with 100% agreeing to the visible problem of a skill gap deficit.

Skills in Demand for Early Career Professionals

The technical and vocational skills required to excel in today's industry have leveled up. With a clear indication of a skill gap existing across numerous industries, the question is whether the skilling ecosystem in India is up to mark? The fact that overall employability stands at 48.7% is a hopeful indicator, showing a steady climb as a result of the various skilling activities by government, public sector and the increased access to global resources. However, there are a set of intangible skills that will always be in demand. From business communication to crisis management, the responsibilities of employees are evolving into more strategic roles. As machines begin to automate operations, people-driven experiences are the underpinning of modern entrepreneurial success. The employee as a stakeholder, if not as much, is almost as important as a customer's experiences. To facilitate a seamless organizational culture and provide goods and services in a personalized manner, certain skills are more valuable than others.

Soft Skills

The ability to handle various personal and professional situations with a calm and practical approach will forever reign supreme. Hence, the widespread focus on soft skills to tackle the global changes in the corporate world are everlasting. This is because employees are no longer expected to just carry out tasks, but to contribute with insights and experiential learning to the ethos of an



organization. The enablement of digital tools have streamlined processes, resulting in more time and flexibility to engage with core decision making capabilities of an organization. Effective project management, product lifecycle development, team handling and customer engagement stem from core soft skills that will continue to be in demand among employers. Having a vast population of English speakers isn't enough, the ability to transfer knowledge and impart learnings in a collaborative manner are the requisites of a modern workplace. People-driven work culture begins with exceptional relationship building and it always starts with a company's employee experiences and their work ethics. Thereby the rewarding experiences are translated into customer engagement that improves a brand's or business's recall value in the market. Problem solving, critical thinking, presentation skills, corporate agility, time management and active communication are just a few examples of soft skills that are raising the bar in corporate India. When asked their preference for a potential candidate, most industries expressed the importance of a good work ethic and positive attitude towards work as a key area of focus. Paired with domain knowledge and experience, candidates with good communication skills become invaluable assets of an organization.

Career Trends on the Rise in India

The India Hiring Intent survey - Early career edition showcased some of the vital advancements in today's job market. Not only do we understand the requirements and focus areas of industry leaders, but the demand for emerging job roles and pertinent digital exposure. IT skills in particular are shaping up the job ecosystem with immense focus on the latest technologies. Employers want adaptable individuals who can learn, relearn and unlearn as the demands of the job continue to dictate new trends and evolve. Additionally, a lot of independent

workers and freelancers are emerging as top favourites for small, medium and large enterprises to engage with particular service requirements. People with the keenness to constantly upskill themselves are providing services that are on par or even better than the teams formed at MNCs and some top organizations. Such is the availability of resources and digital tools that self-employment is becoming a huge trend. However, in a mismatch between India incorporated and the gig economy, there are some common career paths that are in huge demand as we enter 2022.

- **Sales & Marketing roles**
- **Networking experts**
- **Finance and compliance**
- **Specialized engineering**
- **eCommerce experience**
- **Artificial intelligence**
- **Cybersecurity**
- **User experience design**
- **Customer services**
- **Data sciences & analysis**
- **Business leadership**

As more corporations seek multi-faceted individuals who can bring a lot of value to the table, the hiring intent will gradually increase in the next 5 years. More qualified resources are required to run a business in terms of human capital. Although technology tools will prevail in automating human work, the qualified intelligence of dynamic thinkers will always be in demand. As a testament to changing times, digital businesses and blockchain will propel the adaptation of current workplaces to a more experience-oriented system. The welfare of employees will remain a top priority and arduous tasks will be the machines' problem, while the thinking behind every business decision remains a human endeavour.

Tenacity Over Conventionality

Conventionally, the employee was hired to suit a specific job role. But at the rate of advancement across industries, job roles are becoming more adaptive to the technology available. Expertise in the latest software stacks and cloud platforms are a huge bonus for a fresher or aspiring professional. From creative pursuits like content creation and vlogging, to technical attributes of AI, ML and IoT, the end goal of employees would be to facilitate seamless experiences for customers and translate their learnings within the organization. This shared responsibility is nudging candidates on a journey of discovery, with new job opportunities and career paths coming up every day. To contend in the modern economy, it is important to upskill one's knowledge with the latest technology tools. From

basic HTML knowledge to advanced Python coding, a valuable asset is someone who can contribute with practical solutions to everyday problems. This is where a technical knack is enhanced by problem-solving abilities. The numerous short-term and long-term certifications readily available, the free video tutorials online and remote work opportunities, add up to a more simplified idea of work. Workplace tenacity is trumping conventional organizational hierarchies. Knowledge work is becoming value work. Thus, a knowledge driven economy will require less knowledge workers and more practical solution providers to real world problems that businesses face.

Gender Participation in the Workforce

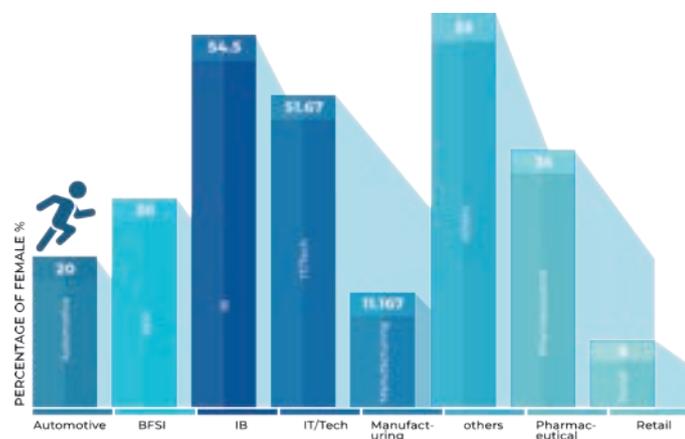
Compared to the statistic of 46.8% of employable women in ISR 2021, this year's report revealed that 51.44% of women were found highly employable. This is significantly larger than the demographic of male test takers which stood at 45.97%. However, the corporate mix still identifies that the male participation is more than women. The participation of women in the workforce is expected to be the same as last year - with a rising demand from BFSI, Internet Businesses and IT. However, the availability of qualified female employable resources are a hopeful indicator for the positive hiring intent in the coming year. In fact, the largest share of employed professionals among the WNET test takers were women, which stood at 51.4% of the 3 lakh test takers. As the access to education improves, societal norms change and the value for work exposure increases, more women are expected to enter the formal sector in the coming year.

In terms of demand, there has been a steady increase in the need for qualified labour. Women in India are climbing the ladder as the more qualified demographic in schools and colleges. However, the transition from education to work is still a challenge in many parts of India. On the contrary, urban India has seen an increment in the number of self-employed women as well as corporate workers and gig workers, who provide services like training, content writing, SEO, business consulting, marketing, product development, fashion design, leadership consulting and software development among others, and are employed by organizations of all sizes. The advent of internet businesses, ecommerce, online coaching, counselling, graphic design and financial services are all markets dominated by a significant share of women participation. The gender roles in corporate India are slowly shifting, as more people understand the importance of exposure to the in-demand skills required for the modernized workplace. In terms of women employment, India is ranked one of the lowest in the world. Yet, the education and skilling ecosystem is expected to furnish the nation with invaluable assets in the coming years. More women are investing in learning code, business management, engineering and are taking up projects across diverse industry verticals.

The concern of gender participation at work is not just a national issue, but a globally applicable question of social welfare and economic advancement. Considering the large population of employable women in India, government initiatives and awareness about gender roles in India are vital to taking steps in the right direction to fortify the utility of its vast human capital. The available human capital and opportunities are on the way to restructuring the gender matrix across corporations, which has always been a concern since even before the industrial revolution. The government and private sector requires a constant reminder to ensure that gender parity is no longer an issue, but a stepping stone to empower people with new opportunities as the world comes together. Awareness of the issue starts with each individual believing that people everywhere deserve equal rights, fair opportunities, and consideration when it comes to employment and livelihoods. 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. The advent of remote work has empowered women across the country with such opportunities to leverage their skillsets and contribute to the workforce of India. Furthermore, small, medium and large organizations are implementing policies at work that understand the needs and priorities of female employees. The elimination of stigma surrounding women who take up work is soon to fade into the revolting spirit of modern India.

Gender Parity A Concern: Female: 32.8% | Male: 62.2%

Hiring Mix of Male & Females Per Industry (INSERT)



Leveraging Technology For Recruitment

Analyzing India's talent pool, recruitment across diverse verticals have been streamlined with location related data and updated employability statistics. Since training and onboarding of newly recruited employees can be done virtually, the vast expanse of India's youth demography can be salvaged by corporations situated in any corner of the nation. The widespread outsourcing of talent consultants and background verification activities have created a consolidated view of where the hiring activity majorly occurs. Platforms like LinkedIn, Facebook and Google are leveraged to full capacity in an attempt to identify, shortlist and secure human capital from anywhere. Increasingly, more students are seeking visibility on online platforms for a promising career opportunity at MNCs, SMBs or even informal sector jobs. In the last 20 years alone, an organization's ability to identify potential candidates based on geography and qualifications has been streamlined and made more effective. HRMS software and talent experience platforms add to the zest of modern talent management and recruitment. With a consolidated view of the employee experiences, companies are more informed when hiring resources and can keep all the key factors in check. One such factor is the attrition rate. The attrition rate of top IT companies in India is at a record-breaking high, which is also a contributing factor to the increasingly rampant talent war. The pandemic slowed the IT job market and saw that many freshers as well as experienced professionals were seeking greener pastures, to apply their time and skills in another way. For example, the attrition rate at conglomerate Cognizant India was at an all time high of 21% between the months of January to March of 2021. This was a huge hike from 19% during the same quarter of the year in 2020 that caused much worry. Infosys and Wipro were other large organizations addressing a concern over the increased attrition rate witnessed during this period, with 15.2% and 12.1% respectively. For qualified analytics professionals in particular, the overall attrition rate across Indian IT was recorded at 16% during the fourth quarter of 2020. This was a significant improvement from the 30.7% recorded in 2019, indicating new policies and employee centric activities to avoid such cost to capital implemented by various organizations in India. Employees in many of the leading IT companies reportedly saw a 50% to 70% salary increment in April of 2021 in the attempt to strategically reduce attrition at large companies. As a result, the caution and constant monitoring of key driving factors related to human capital retention are a top priority as we enter 2022. That beckons the question, what are the recruitment strategies employed by organizations as we enter the new year? Where does all the hiring happen?

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

Hiring by Geography

Candidates from Maharashtra, Karnataka, Tamil Nadu, Kerala and Delhi top the list of states most favoured by employers, and is where maximum talent poaching occurs. Delhi, coming fifth has a fair supply of employable youth talent, making the region a key focus of recruiters in the coming year as well. Kerala is a top 4 destination for recruiters looking for talent, where despite massive reforms in cities like Trivandrum and Cochin, there is a shortage of employment opportunities in various fields. To bridge the gap and avail talent without incurring a heavy cut in the budget, companies in Tier 1 & Tier 2 cities across India are targeting Kerala's youth population. The booming cities of Chennai and Coimbatore in Tamil Nadu have increased in infrastructural capacity and job opportunities over the past two years. Paired with a highly employable youth population, candidates from this area are highly sought after by top organizations, as revealed in the Hiring Intent survey. Karnataka's capital Bangalore is the most preferred destination for candidates to work, and companies in this area find a high demand for employment in various disciplines, ranging from customer services and BPO to data analytics and education. Hence, the hiring intent of companies reveal a continuous interest in candidates from Karnataka where the second most hiring is happening, also being among the top states with highly employable men and women candidates. Furthermore, Maharashtra being among the largest cosmopolitan hubs in India, tops the list for maximum hiring activity. Talent from this area is in high demand by enterprises looking for quality to maintain their workforce and are assured of the availability of skilled labour. Andhra Pradesh, Telangana and Uttar Pradesh were also favourites for recruiters who require skilled labour. The demand for freshers is increasing and considering the massive inflow of youth from various states, a more inclusive yet diverse culture is being woven into the fabric of contemporary India's workplaces.





INDUSTRY LEADERS SPEAK



“ We have seen rapid growth in the last 18 months despite the pandemic. Although India was significantly impacted, the workforce was quickly able to manage everything remotely. The market has constantly evolved since; we saw the lowest level of attrition last year, but now we are seeing a massive talent war this year. However, this talent war is temporary pressure that will further accelerate investments in upscaling of talent and therefore rebalance the availability of talent in India. ”

- Tanvi Choksi
CHRO, JLL India

“ Instead of looking at gigs from an organisational perspective, we should look at them from a competence perspective. For instance, companies can explore gig workers who are subject matter experts in critical projects; this can further speed up the acceptance process of gig workers in the company. ”

- Munish Vasudeva
VP – Human Resources, Siemens



“ IT has a lot of potential, and the key to moving forward in this hyperactive market would not be just hiring experienced talent but collaborating with universities to get “Industry ready talent. ”

- Sameer Balpande
Global TA Head, Quantiphi



“ Organizations which are mature, are building their talent pool. They will have minimal impact in the crazy talent cycle that we are going through. Companies will be forced to look at the talent requirement for the next three or four years and invest in building the required skill set. ”

- Sriram Vaidhyanathan

CHRO, BankBazaar.com

“ We have always had a culture of hiring talent with the right attitude first and foremost, and subsequently moving people around the organization in different roles and teams, offering them a chance to explore areas of professional and personal interest aligned with business needs and priorities. Companies and talent, both have different needs over the course of their own lifecycle. The magic happens at the intersection of both their needs. To facilitate that, flexibility is required from both parties i.e. Companies as well as human capital, which ultimately proves to be the perfect symbiotic relationship. ”



- Varun Madan

Head HR, Xiaomi India



“ India has proven expertise in chemistry, but we need to develop / build skills / capabilities in biology and biologics. Its time for organisations to seek balance between volume-based approach to value-based approach. Talent will be required in all areas (mass & niche on both chemistry & biology side). These are the areas where we need to make significant strides, and thus developing and building talent across the value spectrum is very crucial for the country going forward. ”

- Ashutosh Kotwal

Head of HR & Administration,
Aurigene Services

Education and Skilling for the Digital Age



According to a research conducted by the World Economic Forum, it was identified that 65% of children entering into their primary school years will go on to take up work in domains that are currently non-existent. This is a clear indication of how important education and skilling is to adapting with the digital age of increased visibility, improved process control and personalized experiences. Organizations that are left behind by being unaware of the emerging trends will be underprepared to tackle future demands of the economy and its evolving workforce dynamics. Reformative policies and leadership at every level of public and private sector growth strategy is fundamental to skilling for the digital age. To better understand these emerging trends, we've compiled some surprising statistics that will urge prompt and definitive action.

The Advent of Modernization

Emerging roles for humans and robots are going to be normal talk at the peak of the digital age. Currently, up to 29% of all current tasks are performed by machines, robots, AI and algorithms. This percentage is going up and expected to cross 42% by 2022, and exponentially grow faster to 52% by 2025. The new occupations that emerge will be responsible for creating a balance between human work and machine work. The continuous development in AI has resulted in automation technologies across various domains, which eventually could replace functions like

administration, management, project coordination, advisory, and other tasks that involve decision making based on reason. The rising demand for cognitive and social skills will set the premise for future employability. Social skills like influence, negotiation, leadership, persuasion, empathy, practical and critical thinking, etc., will gain more value. According to a study conducted by McKinsey, overall cognitive skills demand will rise by 26% in the coming year. The indispensable nature of human work in the future will be based on upskilling and continuous adaptability. By identifying and closing the skill gaps in an industry, human capital will refine knowledge work to suit the technology driven workplaces of the future. The World Economic Forum states that employees on average would need a solid 101 days of holistic retraining to catch up with the skill gap deficit and be considered employable once again. As hiring across geographies becomes easier, a global and diverse workforce will make up most organizational hierarchies in even the budding economies of the world. In terms of religion, ethnicity, identification, gender, culture and other social demographics, the modern workforce is expected to become more diverse across all of corporate India's companies. Business leaders will pioneer workplace policies to redesign the fabric of workplaces and the employee experiences. From office layouts to work culture, the inclusive nature of globalization is rapidly spreading its wings over the current system of governance. A more people-centric

approach to work will benefit the upward trend of job satisfaction and employee morale, further encouraging neutral gender participation in various disciplines. According to Accenture, 79% of all executives foresee project specific roles in the future, as opposed to designation specific roles. By 2035, the Accenture study reveals that up to 1 billion people across the globe will be working remotely. This trend called digital nomadism has already been sped up by the COVID-19 related changes in workplace dynamics and perception. Considering that 14% of all remote workers are suffering from a disability or chronic illness, the sheer advantage of work from home flexibility has enabled 83% of this worker demographic to enter into and contribute to the workforce proactively. This type of increased inclusion is a powerful statistic that values the contribution of a workforce with skills and experiences. The need for more secure IT architecture and digital workplace solutions will create a raging demand for technology solutions, empowering local vendors and providers with improved visibility and business. Hence, skilling and education for the future of work requires a strategic initiative driven by corporates, citizens, governments and students in India and the world.

Data is the New Oil & Informatics the Engine

As the demand skyrockets for data professionals in the world, India's tech sector is not the only beneficiary of analytical thinkers with knowledge of various cloud environments. Data is the new oil, and every business of all sizes are seeking new ways to optimize their operations with data-driven insights. From understanding the market cap to forecasting product value, the share of data in modern businesses has increased manifold. The big data and analytics software revenue in the year 2018 crossed \$67 billion worldwide. The same year, the forecast for analytical software development was estimated to bring in \$36 million dollars on average Today, Oracle's share in Big Data crossed 9% of the global share in this technology. From sports and restaurants to mines and weather stations, data is driving decisions, saving lives and saving the lifeline of businesses. India is a booming analytics hub and 60% of all revenue generated by analytics in India comes from exports to the USA. This speaks volumes about the available resources and technologies developed in India. In the analytics market of India, 24% of the market share is attributed to big data alone, a field that is responsible for everything from the success of Facebook to the timely crisis response by governments in the case of natural calamities. Hence,

data professionals with analytical minds and project experience that transcends the average business expectations will rise up the ranks in the Tech sector. By utilizing data from employee experiences, business leaders and professionals can decode the needs of their workforce to reduce attrition and boost employee morale. By increasing collaboration with technology tools, various teams can come together and share insights that improve workflows and impact the organization positively. Data-driven insights lead to productivity in the workplace and increased operational control over growth trends for both enterprise and government establishments.



Cybersecurity is Key to the Digital Transition

The need for qualified network engineers and cyber security professionals will grow in demand exponentially over the next 4 years. Currently, data security and risk mitigation are a top priority for almost every establishment in the world. In India, the cybersecurity market is expected to grow at an unprecedented rate. From an initial evaluation of Rs.140 billion in 2019, the increased digital adoption is expected to propel the cybersecurity valuation to Rs.290 billion by 2025. This is a niche that requires experts and the IT training institutes of India are well aware. For a business to grow in the digital age, compiling digital assets is vital, even more so the security of these digital assets. The growth of this career discipline will not only furnish possibilities for computer science graduates but software developers who are looking to incorporate intelligent security in their systems. Furthermore, as digital adoption increases, the use of AI and ML to streamline cybersecurity will propel the valuation of this segment by 350% in the coming year. A report from Michael Page, a global business

consultancy revealed that more industries are leveraging cybersecurity practices and professionals to secure their data and prevent vulnerabilities. The report revealed that 3.5 million new jobs will emerge in this discipline, urging highly qualified candidates to hone their skills and gel with this industry growth trend. Considering India's market size, the cybersecurity market will have 1.5 million jobs in the country by 2025, a large share of the global IT infrastructure for cybersecurity and informatics. Microsoft, Apple, Google, IBM and Code.org are among the key players who have initiated various skilling initiatives pertinent to the growing demand for cybersecurity professionals in the industry. Eventually, the knowledge of cybersecurity will become a norm for every tech worker to learn and understand in order to perform their jobs and employ secure digital tools. The increased popularity of remote work also urges organizations to adopt and educate their employees with cybersecurity best practices. Even the average social media user should be educated on cybersecurity as the vulnerability on these platforms are high. An expected 54% of IT professionals state that those who work remotely and access the internet from their personal devices are more prone to cyberattacks than an organizational environment. Making up a central part of the IT jobs, cybersecurity will be responsible for facilitating seamless work experiences and improved control over digital assets. By preparing for the future of work, organizations can reduce risks by hiring qualified experts in the field of cybersecurity and informatics.



The Era of Artificial Intelligence

Among the other fields that require a large supply of the engineering and computer science graduates is AI, Deep Learning and Machine Learning. The stake of AI in everyday life is only increasing. The use of social media by businesses to gain insight into consumer behaviour, social listening tools, experience platforms and intelligent process automation are all key examples of how AI is leveraged in the modern day. Paired with Machine Learning, AI has an infinitesimal capacity to alter the very fabric of reality as we know it. The use of AI for environmental intelligences is an example of how impactful the technology is to sustenance and management. Weather forecasting is a combination of big data processing from multiple sources and translated into interpretable data, with real-time insights about weather patterns and changes. AI is used for predictive analysis that helps governments and research labs alarm or avert a crisis based on the data available. Intelligent machines compute vast sums of data with a feedback mechanism that constantly monitors and improves existing systems to handle extreme weather events, disaster response, pollution levels in cities and more. An everyday example of AI is how YouTube, Facebook and other social portals offer content suggestions based on user preferences and history. The analysis of historical data is also a vital component of big data handling in enterprise level activity. This helps decisions predict market trends and study consumer expectations at a whole new level. The employment of deep learning to create powerful machines with highly scalable computing power, give researchers and technology pioneers the ability to perform revolutionary tasks like remote surgery, self-driving cars, supply chain management and even manufacturing. The popular use case of AI and Machine Learning in customer services is widely appreciated as an effective mechanism to handle large scale business operations. At the current rate of advancement, the global AI market is estimated to reach \$60 billion and that's just a rough figure. Experts estimate that by 2030, the global GDP will rise to \$15.7 trillion owing to the various use cases and continued development of AI technologies. As the field of deep learning gains prominence, industries from healthcare, automotive, BFSI, manufacturing, entrepreneurship, core and energy and every other sector will employ AI in one form or the other by the year 2023. This promising endeavour into the future of computing has given rise to the demand for qualified professionals in developing the current infrastructure to hold the future that technology pioneers and enthusiasts envision. Currently about 77% of all devices used worldwide employ AI in one form or

the other. Another impeccable case study of deep learning that improves AI and Machine Learning is the use of AI to predict human behaviour, mimic reason and carry out complex calculations much faster than people ever could. By 2021, the IDC forecast in partnership with Salesforce estimated that over 800,000 jobs would be created by AI, a figure that has long been transcended by the huge demand for AI professionals, Data Scientists, Machine Learning experts and System Architects. Development in the field of AI and Deep Learning is boosting the tech industry and seeping into almost every vertical across industries. The \$1.1 trillion impact predicted by IDC for the year 2021 is now history, as AI commits to reform the IT industry with intelligent ways of work and hyper automation. Since 2000, the investment in AI grew 6 times and the figures amount to trillions of dollars in Deep Learning research, fine-tuning algorithms and building smarter machines to take over most rigorous yet crucial human activity. While the fear of AI replacing most of the jobs we know today is real, the opportunity that comes with it is of paramount significance to the path humanity chooses for the future. AI will create more strategic roles for people, and has the potential to cure almost every disease that has plagued humanity. Closely tied with medical, environmental, entrepreneurial, and logistical implications, the supply of qualified AI professionals, deep learning experts, machine learning professionals and system architects has many shortcomings. However, the demand is on the rise and with availability of specializations in the latest technologies, with e-learning platforms like Great Learning, UpGrad, and Universities like Harvard, MIT and others, offering tailored courses to meet this demand for talent across the world. India is beneficiary of this trend, considering the high employability and opt-ins for Tech courses across states. If we are to salvage this opportunity for future generations, the apt response to this emerging trend would be the key differentiator between early adoption and sustainable skilling pan India. Before you know it, fuel station attendants would be replaced by machines, chefs would be replaced by machines, teachers are already being replaced by machines and crucial business decisions are already being made by machines. But these machines are built for people, and people are the beneficiaries of technological advancement. So how does India fare in the race for qualified human capital globally? Do we stand a chance?

As a bonus section of this year's report, the following section explains 6 drivers of change that are vital to understanding the digital era and preparing a skilling ecosystem that is adaptive to the context of modernization.



Drivers of Change - Building for the Future of Work

Early in the 1990s a machine by IBM called Deep Blue defeated world champion Gary Kasparov at his own game, chess. Watson supercomputers have gained a reputation for beating participants on the show called Jeopardy. Previously, when employees feared that their jobs were being outsourced to people overseas, innovative solutions like “cloud assembled teams” comprising diverse global talent emerged and created a hybrid workforce model for companies like LiveOps and ODesk to run marketing, sales and customer support from the comfort of a desk. Five years ago, NASA wouldn't have been able to capture millions of telescoping images of the cosmos from a single computing resource in a remote lab. Today, global connectivity and smart machines are changing the way we work and more importantly the way we perceive the world. In the following sections we summarize 6 key drivers of change that shape the future of work through disruption, leading to modernized skilling to catch up with technology, a mere product of tireless human endeavour.

Increased Human Lifespan Globally

Predictably, by 2025 the number of people over the age of 60 will increase by 70% in western nations like America and Canada. In India, the improved healthcare system is following this very trend. The challenge of an aging population may redefine the notion of skilling for the future of work. People will redefine the meaning associated with aging and thus the process of learning, which is often a lifelong endeavour. Since technology is built to serve people, the demands of a longer life will require new conditions and mechanisms to sustain the demographic. This conclusion leads to a much higher

age for retirement, a rearranging of career priorities and the ultimate exercise of the freedom to choose. To capitalize on this trend of extreme longevity, organizations will have to be prepared by upskilling their workforce to meet a future of possibilities to handle improved medical services, mental welfare, better family life, improved fiscal independence and healthier lifestyle choices. What we eat, how we work and how we lead our lives will change in the blink of an eye and a more diversified, flexible and inclusive environment will be the forte of thriving businesses.

Rise of Smart Systems and Machines

The digital disruption has already left most of us amazed and in awe of what technology can accomplish. In the coming decade, machines will only get smarter and our homes, offices, factories and schools will be altered forever. Machines capable of combating disease, imparting education, safeguarding the planet and even producing raw materials will come to the fore. Much of the sustainable goals for the year of 2030 will be met with technological advancement across the globe. As the machines replace people by automating some tasks, they will also redefine other tasks by augmenting the way we work. The very existence of these smart machines will create an impact, where we are left to ponder, what are humans exceptionally good at? What is our relationship with these machines? In response, we will have to rethink and augment the nature of our work and thus free up time for the things we enjoy in life. This collaboration between humans and machines is already evident in the modern workplace. Digital workplace solutions are already setting new parameters and standards for much of what we accomplish in a day. The real power of biotechnology and robotics will extend the capabilities of humans and provide solutions to real problems that hinder life. The codependency on machines will reveal our real strengths like empathy, consideration, responsibility, love and the values we attribute to these core human traits.

Unmatched Computing Power

Massive developments in the field of quantum computing and microprocessors will redefine the way we communicate and process data. Everyday objects will be enhanced with computational power and the scalability of these solutions will help mankind conquer beyond just earth, but the unexplainable vastness of this cosmos. Everything we come in contact with can be turned into data, interpretable and applicable to our desires and curiosities. Essentially the improvement in computing

resources will increase our ability to manipulate data and derive conclusions faster than the blink of an eye. The world will reach a stage where everything is programmable. The ability to design a world of our visions will disrupt the very fabric of reality as we know it. As is the case with cloud computing, enormous sums of data can be transformed to suit the objectives of people and their lives. Real-time crisis aversion, social interactions, everyday trips to the office, real-time traffic data and discovering new medical combinations will become easier and more efficient than ever. Instead of making data based decisions, humans will have the computing resources to use data to achieve a desired outcome.

The Evolution of Media Ecology

The latest trends in multimedia like augmented reality and virtual reality are becoming more popular each day. The announcement of Facebook Metaverse is one example of the giant leaps taken in multimedia technologies. New forms of video production, media editing, digital animations, gaming and augmented reality will become more sophisticated, refined and accessible. This advancement in multimedia would be much like developing a new vernacular or a language to communicate concepts that otherwise cannot be done. Text-based internet is already evolving with animations, videos and other visual elements. Virtual networks are becoming more consolidated and integrated with various environments that impact our daily lives. Since the human experience is all too valuable, the reaction to the multimedia evolution will become an indispensable asset for people of all ages. As is the case, mobile games, video games, movies and animes already have a cultural significance to the viewer. Amplifying this innate ability to empathise with our experiences and transform the way we embrace these encounters will redefine the very essence of human rationality. The ability to comprehend complex concepts will become better, the interpretation of history and recorded events will become clearer and we will be able to each tell a different story from multiple angles and perspectives and imbibe all that knowledge at once.

Super Structured Organizations & Value Systems

New social media platforms and technologies have already reorganized and rearranged the way we deal with each other and the world. This amplified value is an impact of a collective intelligence that taps into resources intertwined with social relationships and integrates our perspective with experiences. Ordinary people will be able to reach a scale that was previously only attainable by large organizations. We will be empowered with new ways of economy and society that alters the value system. The success and appreciation of cryptocurrency and blockchain are clear examples of the supersized structure of value systems. Organizations will thus have to grow beyond normally accepted basic compositions and extend to extreme scales, becoming macro-level partnerships utilized for the benefit of people. By interacting with advanced social tools and work tools, people will learn how to govern and invent these growing structures in the comfort of their homes and offices. This level of knowledge will transform policies and adopt technologies that transcend current scientific knowledge. With this improved access to resources, people will be able to self-monitor and aggregate personal health data, personalize and take charge of their own learning from an early age, solve problems of any scale and build sustainable solutions to the many issues we face today. A new era of work skills and organizational concepts will emerge and the future workforce will have to be honed by assessing the endless possibilities of having more than enough. New theories about happiness, sorrow, drug addiction, psychology, human physiology, diet, parenting, game design, and neuroscience will empower people with wisdom and reach beyond what is imaginable within the paradigm of current digital tools.

Global Connectivity and Interconnected Demographics

In the most basic sense, globalization is the driving force of modernization. Improved echanes across geographies, seamless integration between cultures and a highly sentient world are not far from our reach. The interdependent nature of our world will emerge as a consolidated mechanism where each nation and race contributes equally to the advancement of humankind. The United States and Europe will no longer dominate the global monopoly of resources, job opportunities, political prowess, innovation or multimedia. Developing nations like China and India are already embarking on innovation at scale in mobile technologies, at a much

faster pace than the above mentioned superpowers. The overhauling of legacy infrastructure will contribute to higher growth rates in developing countries. The prevalence of offshore IT outsourcing by multinational companies is rampant in India. In the past 10 years, IT companies in particular have outsourced everything ranging from software development to customer service and their model has stayed the same, benefiting from cheap labour and favourable tax laws. This has allowed large organizations to become even larger and dominate the market. Yet, the advent of design and innovation in research labs across developing nations are creating a global network based on fair play. The large market share of China, India and Russia are creating waves of products that are tailored to the needs of a consumer that hasn't been categorized yet. This global competition will create the basis for a more diverse and versatile workforce of the future. The key is to not just hire people in your own locality but to integrate local businesses and workers into the global organizational infrastructure to gain a competitive edge.

By understanding the drivers of change, organizations and academia can tailor a plan to align their skilling and hiring initiatives based on rapid urbanization. Since we have already explored the key jobs in demand, the factors that influence employability in the coming years are a direct result of the 6 drivers of change mentioned above.



Embracing Modernization

At the rate of advancement and adoption of digital tools, the dynamics of modern workplaces are changing. To keep up with the shift, it is essential that the skilling ecosystem in India is driven by the demand for talent across numerous verticals. Adopting sustainable modes of skilling starts with analyzing the trends of rapid modernization. If the demographic of India is to match the expectations of the future, the way we skill people should be based on values beyond monetary benefits but experiential learning and holistic development in the field of science, technology, humanities arts and commerce. Evidently, specialization in one discipline can make you a subject expert. But to embrace change, one must delve beyond existing patterns of information and create a roadmap of career goals, ambitions, timelines and rigorous management of available resources. The nation should furnish opportunities for the youth to imbibe in cultural expression of ideas and innovative problem solving that positively upgrades the lives of others. This goes to say that the vast employable youth population will benefit from not just practical subject matter insights, but real human experiences that teach empathy and compassion as the bedrock to embracing change. After all, if one cannot synthesize the aspects of everyday lives that make or break the world they occupy, one cannot accept the intelligence of machines to solve real problems. Similar to the great French Revolution, the Industrial Revolution is not just about finite resources but the infinite spirit of human endeavour. By realizing that we have the tools necessary to project a roadmap for the future, we can leverage existing data and experiences to craft a sustainable skilling ecosystem across industries. Albeit, embracing modernization is no longer a choice but the inevitable conclusion of all human pursuits.

Based on the data collected in the 9th edition of the ISR report for 2022, the high youth employability is an evident impact of widespread skilling and the focus on new age skills. By teaching the youth the importance of skill acquisition, government and privatized skilling environments are building a more inclusive setting for aspiring professionals to climb up the ladder. However, going beyond the formal sector of India, the contribution and configuration of the informal sector in the coming years will determine digital acceleration in the nation. To dedicate time and energy in generating awareness about modernization, the skilling ecosystem shoulders a responsibility beyond just enabling the workforce with employable youth. The collective responsibility is to reengineer education and society to build for the future of work. Don't teach the youth what to think, just show

them how to think. Inevitably public and private partnerships in the coming years will determine the tenacity of India's education and skilling ecosystem to build for the future of work.



ISR 2022 Overview

The 9th edition of the India Skills Report 2022 focuses on the structural changes required in education and skilling to build for the future of work. While the practical implications of this year's study are immediate, based on data acquired, the long-term plan is the key influencer of succeeding at building a sustainable ecosystem for the nation. The primary research covers talent demand and supply from across India, giving industry leaders, academia, policymakers, students, professionals and aspiring professionals congruent insights into the current employment and employability metrics of India's vast youth talent pool. By highlighting the success of various skilling initiatives nationwide, the ISR 2022 report features an optimistic angle on the trajectory of India empowered by modernization. However, the core philosophies and thought leadership on how to tackle the future of work is based on research obtained from various sources like tech pioneers IBM, Google, Xiaomi, Apple, etc., research labs of Gartner, McKinsey, LinkedIn, IDC, etc., to provide an incisive take on how to approach the efforts of skilling across numerous verticals in the industrial revolution 4.0. While the workforce of tomorrow has been shaped by the steady incline in demand for qualified professionals, the premise of employment opportunities in the nation are also gaining an edge in the global market. To leverage continuous advancement in science and technology and harness the rewards of entrepreneurship, arts and humanities, ISR 2022 consolidates a holistic outlook of the in-demand skills and jobs as we enter 2022. Covering key data points about the advancement in various fields, particularly in the technology domain, the report also analyzes the readiness of India's talent to face the advent of modernization. Considering the average age of India's population is between 26-28 years old, dedicated resources to the skilling ecosystem will position India with the capacity to accommodate and influence the future of work in the coming years. Furthermore, the increased access to information and the streamlined business processes are intended to strategize the development of talent in India. With an opportunity to gain hands-on experience at the forefront of innovation, the youth entering into the workforce in 2022 are also entering into the emergence of a new way of work. People will transition from laborious duties to strategic roles in corporate India. Evidently the importance of soft skills, emotional intelligence and empathy will remain an undisputed winner in the race against time. Furthermore, specializations in various fields of engineering and technology, financial services, management and leadership will contribute to the sustenance of modern industries. As we begin to prepare the workforce for the

for the emerging opportunities, private and public sector entities will dedicate resources to facilitate better experiences for employees and the people of a nation at large. Augmenting the field of science, research, agriculture, environmental intelligence, banking, manufacturing and more, the data-driven decisions made by leaders of tomorrow will determine the growth strategy for modern India. The responsibility to embrace change and adapt to the shift in value systems is bestowed upon the people of the nation, and the globe. We always aim to provide an accurate premise that highlights the employability landscape of India by assessing employment opportunities, trends and technologies of the day. With the youth employment data, the ISR 2022 aims to provide intelligence and support to skill development and employment in India for the coming year. This report is curated to give a clear direction to the change management and contribution of parents, students, professionals, policymakers, industrialists, training institutes, skilling centers, governments and change makers of the day. On the optimistic note of housing the world's largest youth working population and benefiting from rapid industrialization, we foresee an India that is positioned as a world leader in employability and reformative action to direct the economy into the future. India Skill Report 2022 by Wheebox, in partnership with Taggd, AICTE, MSDE, CII, AIU, UNDP, Sunstone Eduversity and ASAP Kerala, is a full-fledged report about the future of work, education, and skilling to match the talent demand and supply in a growing India. Our strong partner network attributes to the widespread reach and motive to harness India's talent landscape and create value with this year's edition of ISR 2022.



Appendix

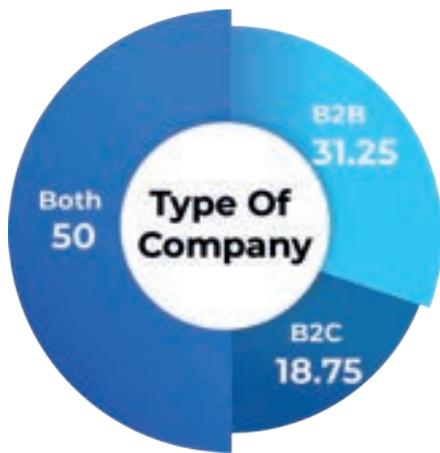


Survey Methodology & Data Analysis

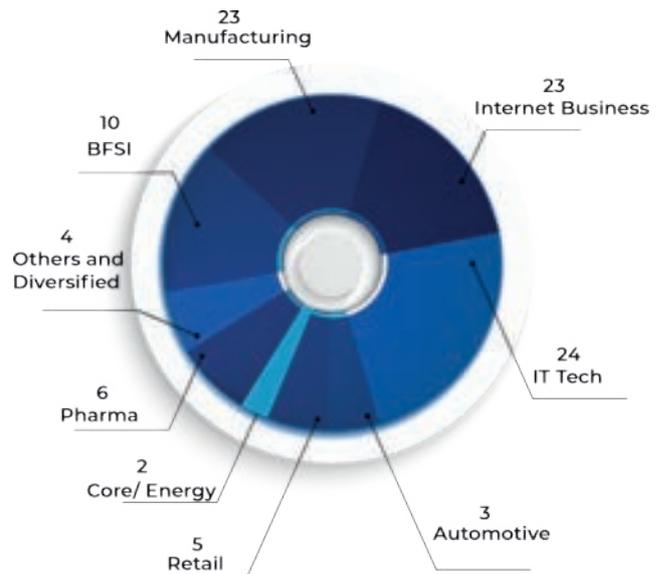
The India Skills Report is a merger of two distinct and cohesive studies from the Wheebox National Employability Test - which analyzed the employability among 3 lakh youth across various educational and professional domains in India, and the India Hiring Intent Survey - Early career edition which is a primary research survey conducted for 150 corporates across 15+ industries. The Wheebox National Employability Test or WNET, assessed the employability amongst students evaluating the job-readiness for the evolving market in India. The India Hiring Intent Survey Early Career Edition of 2022 studied the hiring trend and preferences of employers in top industries for the coming year 2022. For WNET, we reached out to over 300,000 students from various domains and educational backgrounds, through an online skill assessment across the nation. All the responses were collected online through a structured survey including respondents' demographic information. Responses were assessed and analysed using statistical tools to represent data in this report. The assessment scores were collected on all demographic parameters to eliminate any possibility of data polarisation. Students were asked specific questions related to their education along with a psychometric assessment which helped us understand their non-technical skill profile. The outcome of the survey was analyzed around various parameters

such as educational domain, specific skill oriented employability, state specific employability, thereby narrowing down to the top 10 states, city specific employability to identify the top 10 cities in terms of employability, gender specific employability, expected salary ranges, interest for internship opportunities and user data. The Hiring Intent Survey - Early career edition was carried out by Taggd, - who reached out to more than 150+ organizations and corporates from 15 different sectors. An online survey conducted between September and November received 150+ completed responses which were considered for the analysis.

Participation by Company Type



Participation by Industry Work Force



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