

# Global talent in India:

Challenges and opportunities for skills development in higher education



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**GLOBAL TALENT IN INDIA:  
CHALLENGES AND OPPORTUNITIES FOR SKILLS  
DEVELOPMENT IN HIGHER EDUCATION**

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# Preface and foreword

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## PREFACE

This report is the first in a series of reports on the higher-level skills development challenges facing global higher education (HE). This first report draws on a range of perspectives from key stakeholders and explores current perceptions of the challenges and opportunities for skills development in India.

Higher-level, or graduate-level skills, are a key differentiator for economies globally. It is estimated that a skilled workforce can contribute over \$150 billion to the global economy and over \$9 billion in India alone.

Bournemouth University's concept of 'global talent' originated two years ago when we set out an ambition to develop in all our graduates a collection of global mindsets and skillsets to prepare them for a confident future. Our graduates exiting as 'global talent' meant they would be ready for a global marketplace irrespective of whether their destination was regional, national or international.

A natural progression for the concept has been to develop our understanding of the current state of higher-level skills and talent development in different contexts and how this is impacting upon the future workforce and workplace. This study is a first step towards that goal.

Selecting India to commence our global research was an easy choice. India is now the world's fastest-growing large economy and the country ranks 39th among the world's most competitive economies. However, whilst the economy is growing, there is a higher-level skills gap, a gap which is estimated to cost the Indian economy as much as \$8.61 billion INR 556 (billion) in lost productivity (PwC 2014).

There has been a major skills focus in India through initiatives such as Skill India and the inception of the Ministry of Skills Development and Entrepreneurship (MSDE). However, a greater focus on higher and graduate-level skills is necessary to understand and close the productivity gap.

It is here that our report aims to make a contribution by:

- Providing multi-stakeholder insights into the current state of the graduate-level skills development agenda in India and the role of HE within this.
- Identifying current challenges and opportunities for improving workforce productivity and capacity building through skills development via HE.
- Offering preliminary findings for consideration by educators, employers and policymakers in tackling India's graduate-level skills development challenge.

Although the skills landscape is multi-faceted and complex, I do nevertheless firmly believe that the role of higher education is fundamental in addressing this skills mismatch and its ultimate impact on the economy.

This report is only a first and initial exploration of the issues surrounding higher-level skills development in India. The next steps are to refine and repeat this study over the next five years and to undertake a comparative study with other countries. It is our intention that through this work and its dissemination via our Festival of Learning India, Bournemouth University will inform and influence skills development policy and practice in India.

The Indian context is vast and complex and the skills development challenge messy and constantly evolving. We hope, however, that this research navigates this complexity and presents clear implications and insights for our audiences whilst preserving the authenticity of the challenge ahead!

I hope you find this report and its findings useful. We look forward to working with you in the future to deepen and widen this research and its impact.

**Dr Sonal Minocha**  
Pro Vice-Chancellor (Global Engagement)  
Bournemouth University, UK

## FOREWORD

Tomorrow's jobs have not yet been invented today. While previous generations applied for jobs with clear boundaries, tomorrow's young adults will need to create their own.

Key to this will be developing 'learnability' among students, or how good someone is at adapting to the new demands made of them in a workforce with rapid technological change. Without this, India's labour market will increasingly suffer from a misallocation of resources.

It is heartening to see this important research report finds students, academics, employers, and policymakers share similar perspectives on the challenges and opportunities for the sector. This alignment could mean Indian education finds itself on the cusp of its own great leap forward.

Academic staff concede there is a gap between curricula and the world of work; students feel their education may be overly theoretical; employers echo students' lack of preparedness for the world of work, and policy-makers feel that innovation and entrepreneurship need to be better embedded into modern learning.

Human capital development is important for economic development and, in India, should be given equal, if not higher, attention than the development of physical infrastructure. By embedding innovation, entrepreneurship and internationalisation into the education system, and unleashing greater academic freedom, India can not only mitigate against the disruptive force of technology, but gain from it and become a more agile workforce for the world.

**Pratik Dattani**  
Managing Director  
Economic Policy Group  
London, UK

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# Introduction to India



India is now the world's fastest-growing large economy, having outpaced China over the past year. The IMF predicts a robust growth rate of 7.6% for India's economy over 2016 and 2017 (WEF 2016). India now ranks 39th among the world's most competitive economies, up 16 places from last year—the biggest leap for any country in WEF's Global Competitiveness Report 2016-17.

The Government of India has ambitious plans to transform the country into a competitive, high-growth, high productivity middle-income country (World Bank 2017). As India embraces globalisation and international links in shaping a more competitive and open economy and society, the country needs a well-rounded, future-ready graduate workforce, which is capable of contributing to productivity and capacity building across key sectors of the economy. Key challenges in scaling up workforce productivity and economic development initiatives are often related to the quality of the graduate workforce. Unemployable graduates may have a negative effect on workforce productivity levels, which in turn poses challenges to capitalising on the recent economic growth of the country.

#### Reaping the demographic dividend

India is a young country. With a population of 1.29 billion people (WEF 2017), India is the second most populous country in the world and more than half of the country's population is under the age of 25. It is projected that India will be among the world's youngest countries by 2020.

India's demographic dividend is predicted to have huge implications for the future workforce, not just in India but also on a global scale. The country adds 12 million people to its workforce every year and it is estimated that by 2030, a third of the world's working population will be from India alone.

Great opportunities lie ahead for Young India. With as many as 711 million people in the active working age group of 15-59, India is already the largest workforce in the world. Whilst economic and demographic changes are leading to a growing demand for education in the country, skill development and capacity building of Indian talent have also been at the forefront of Modi's agenda.

Amidst India's demographic dividend and large workforce, the challenge of scalability and sustainability of the provision of education and skills development opportunities remains, as the country's HE gross enrolment ratio (GER) at 18% is currently well below the global average of 27% (Heslop 2014). This difference is even starker when India's GER is positioned against China and Brazil with a GER of 26% and 36% respectively (Heslop 2014).

#### Progress on skills development in India

The Government of India has made significant changes to the governance of skills development in the country, in what is already a complex skills landscape. The creation of the Ministry of Skill Development and Entrepreneurship (MSDE) in 2014 was a significant statement of intent to address this challenging landscape and an opportunity to develop the next generation of globally-aware and workforce-ready talent for India.

Following the establishment of MSDE, the Skill India initiative was launched in 2015 with the aim to skill and up-skill over 400 million people in different areas (British Council 2016). Initiatives under Skill India include the National Skill Development Mission, National Policy for Skill Development and Entrepreneurship 2015 and the Skill Loan scheme. New certification and assessments systems are currently implemented alongside efforts to improve the quality, capacity and standardisation of training (British Council 2016). More recently, the Government has launched 50 India International Skill Centres (IISC) set up through the National Skills Development Corporation (NSDC) with courses in foreign languages to prepare the young Indian workforce for global careers. The MSDE's aspirations for IISCs include reaping the demographic dividend by bridging the global shortage of a skilled workforce (Economic Times 2016).

The dominant emphasis in research, policy and practice in India has been on the development and delivery of basic skills which, whilst important, are not enough in addressing the multitude of challenges and opportunities that the country is facing. Recent initiatives by MSDE suggest that higher-level and graduate-level skills should be given equal if not higher attention as they can play a significant role in developing the capacity of the Indian workforce to address the country's priorities and challenges across the social, economic and environmental agendas. Yet, recent evidence from research and practice points



to India's graduate unemployment challenge and poor graduate-level skills record. The British Council's Overview of India's Skill Development Landscape highlights that as many as 90% of graduates from Indian HE institutions are considered unemployable with subject-level graduate unemployment reaching as high as 75% in the case of engineering graduates (British Council 2016).

#### Higher education and skills development in India

With its 33 million students across tens of thousands of colleges and universities, India has the second largest HE system in the world, only second to China (AIU 2017). The skills development agenda is well placed to play a positive role in improving the workforce productivity and capacity building of India through addressing the prevalent talent mismatch (Hays 2017). Indian HE institutions have a key role to play in the process of developing skills, attributes and competencies that are relevant for the industry, not just in India but also internationally.

Amidst current challenges related to graduate unemployment and scaling up of HE provision, universities are central to the response to India's growing knowledge economy needs to develop industry-ready talent with a combination of technical, entrepreneurial and soft skills. The graduate unemployment challenge is particularly acute outside of a very small number of top-tier HE institutions in the country, such as Indian Institutes of Technology (IITs) and India Institutes of Management (IIMs). Outside of that elite group, both average salaries and the proportion of students and graduates on placements and internships fall sharply (ICEF Monitor 2015).

In addition to the expansion and focus on graduate employability, the quality of HE provision will also be imperative in moving forward, particularly with India's opportunity to become a key source of global graduate talent. India's aspirations to develop highly employable talent to join the global workforce, particularly in economies that are likely to face an acute shortage of talent towards 2030 have been highlighted by the Federation of Indian Chambers of Commerce and Industry (FICCI) (FICCI and EY 2016).

Fast forward—India's working-age population will grow to over a billion by 2050 (UNDP 2016) which puts more emphasis on scaling up the country's efforts, including channelling HE as a means to develop work-ready

graduates to join India's workforce. Yet challenges remain ahead, due to the lack of skills development opportunities and targeted employability interventions across the majority of HE institutions across India.

#### The role of skills development in workforce productivity and economic competitiveness

Building on the challenges for the Indian HE sector in the provision of education and skills development opportunities, independent reports and global employer surveys highlight the skill shortage and talent mismatch in India as an issue—e.g. Manpower's 2017 Talent Shortage Survey, Manpower Group 2017. Although India's reported skills shortages—standing at 48% in 2017—are on a path to improvement when compared to previous years, the country is still experiencing shortages above the global average, which in 2017 stood at 40%.

These perceived and real skills shortages and India's talent mismatch, affect workforce productivity and capacity building, and have a negative effect on the economy and society at large. Poor talent alignment costs the Indian economy and businesses as much as \$8.61 billion (INR 556 billion) in lost productivity (PwC 2014). The lack of skilled workforce, which is a key driver for productivity on a local, state and national level, also affects the competitiveness of the Indian workforce and economy on a global stage.

This is evident in India's position on global indices, such as the Global Talent Competitiveness Index (GTCI). Despite being among the 40 most competitive economies in the world, India is 92nd out of 118 countries when the competitiveness of its talent is measured against other global economies in GTCI (GTCI 2017). This points to some key fundamental challenges for the Indian HE system and its skills development initiatives to improving the quality of the graduate workforce. This report explores the current state of the HE and skills development agenda in India and the role of Indian HE in skills development from a cross-stakeholder perspective.

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## Scope, research approach and key findings



## SCOPE

Current evidence on the role of HE to address Indian workforce productivity and capacity building through higher and graduate level skills, particularly in light of the Government's aspirations, is limited. This stance has been reflected in an authoritative joint study commissioned by FICCI and EY—Higher Education in India: Vision 2030 (FICCI and EY 2016).

This report builds on the current, albeit fragmented evidence into the role of HE and higher-level skills development in improving Indian workforce productivity and capacity building. Its purpose is tri-fold:

### One

Provide insights into the current state of the higher and graduate level skills development agenda in India and the role of HE through the perspective of HE leaders, educators, students, employers, and NGOs:

- The conceptualisation and application of skills development and the state of institutional employability practice from an HE angle.
- The state of workforce readiness of Indian graduates from an employer perspective.
- The policy and planning of skill development and the Indian workforce from the perspective of policymakers.
- The societal and community aspects of workforce productivity and capacity building from a third-sector perspective.

### Two

Identify current challenges and opportunities for improving workforce productivity and capacity building through graduate-level skill development by HE from the perspectives of HE leaders and students, employers, policymakers, and third sector and community organisations.

### Three

Offer initial insights and actions for consideration by Indian HE and other key stakeholders involved in tackling India's higher and graduate-level skills development challenge.

## Case studies

These insights are supplemented by five individual case studies, providing deeper insights into the challenges and opportunities around skills development in India from the perspective of individuals involved in organisations such as the British Council, the Confederation of Indian Industries, alongside global employers, academics and students.

## RESEARCH APPROACH

Profile of organisations participating in the study:

### Higher education leaders and academic staff

Representatives from the University of Madras, Symbiosis International University, IITs and IIMs, as well as representatives from technical, liberal arts and engineering colleges affiliated to over 15 universities across India.

### Students in HE institutions

Undergraduate and postgraduate level students at the University of Pune, University of Delhi, Symbiosis International University, University of Madras, IITs, IIMs, in addition to technical, engineering, social sciences and liberal arts colleges.

### Employers

Senior representatives from large international organisations, such as Alibaba India, Google India, Accor Hotels, CNN, Hindu and a range of small and medium-sized businesses established in India across key sectors of the economy.

### Policymakers

Representatives from the Department of Education in Delhi and Madras, the National Skills Development Corporation (NSDC), Ministry of Skills Development and Entrepreneurship (MSDE), Sector Skills Councils, the Ministry of Human Resources Development and other government organisations.

### Third sector organisations

Representatives of NGOs involved in education and skills development, social entrepreneurship, gender and minority empowerment, arts and culture, where prominent organisations included British Council India, Teach for India, U&I and E&H Foundation.

### Study sample and profile

A total of 35 semi-structured interviews with representatives from the following stakeholder groups have been conducted—featuring at least five interviews for each stakeholder group:

- Higher education e.g. senior leadership and student representatives.
- Policymakers e.g. representatives of various governmental bodies.
- Employers e.g. employers from key sectors of the Indian economy.
- Third sector organisations e.g. NGOs and community organisations.

Building on the semi-structured interviews, 235 survey questionnaires were distributed online and completed by representatives from each of the five stakeholder groups.

This report also draws from a roundtable and a focus group discussion:

- The roundtable titled Perspectives on Global Talent was held in New Delhi in April 2017. Attended by representatives from HE, local authorities, businesses and third sector organisations, it initiated a dialogue on the concept of and application of global talent in the context of India, challenges and opportunities to skills development in the country as well as key ideas for the future of Indian HE.
- The focus group was with Indian undergraduate students. It was held in Pune in April 2017 to gather their views on the role of HE in skills development and to provide some key ideas for the future of HE.

Note: detailed methodology and sample characteristics are provided in Appendix Two of this report.

## KEY FINDINGS

### Stakeholder groups

Amidst India's booming economic development and current progress in HE, the state of higher skills development in the country points to a number of key

challenges that require a proactive and collaborative approach to addressing them and this is evident in the key findings from the five stakeholder groups. Such an approach will enable HE and skills development to play a positive role in improving the workforce productivity and capacity building of the Indian workforce and ensure that future graduates are employable and can confidently navigate through the world of work, either in India or internationally.

### Academic staff

Academic staff and HE leadership pointed to the current gap between the university curriculum and current developments in the world of work, with 65% of them feeling that students in Indian HE are unable to demonstrate that they have had the opportunity to apply graduate-level skills and competencies and gain industry exposure. Academic staff highlighted the value of internationalisation in Indian HE, with 96% of them feeling that there is significant value in establishing international collaborations and partnerships. Yet, challenges remain ahead as a recent British Council report highlighted that with only 631 partnerships with international HE institutions, Indian HE institutions have established a relatively low number of collaborations to date (British Council 2015).

### Students

Students in Indian HE reflected on the nature of teaching at Indian universities and colleges, which is still largely theory-based. A 2016 joint study by FICCI and EY on the future of jobs and its implications for Indian HE also highlighted that outdated curriculum is among the key educational framework challenges in India (FICCI and EY 2016). Students highlighted the lack of exposure to practice-based HE curriculum and pedagogies, with only 37% of students agreeing that the curriculum and pedagogy at Indian universities offer relevant and current training development opportunities. Students felt that HE has a key role in preparing them to navigate through an ever-changing world and equip them with key graduate-level skills and attributes. Yet, only 41% of the surveyed students stated that they have access to employability and careers services at their institution.

### Employers

Employers and industry representatives highlighted the lack of preparedness of Indian graduates for the world of work, with only 33% of them feeling that students and graduates are able to demonstrate the necessary higher-level skills and knowledge that they are looking

for in their industry. This finding is supported by a recent report that highlights the high levels of unemployment among Indian graduates due to the lack of skills required by employers (British Council 2016). Employers felt that the Indian HE sector's relationship with industry is closed and isolated from the world of work. Nevertheless, 90% of the surveyed employers indicated that they are willing to partner with academic institutions to help train students through mentoring, voluntary placements or internships.

### Policymakers

Policymakers suggested that a move in Indian HE towards firmly embedding disciplines, such as entrepreneurship, innovation and quality research, have the potential to scale up and support the Government's efforts in skilling India. Yet, only 30% agreed that Indian universities have the necessary academic and professional staff to provide students with new and industry-relevant knowledge and other higher-level skills development opportunities. A recent report into reaping Indian's demographic dividend highlighted the importance of developing a pool of trainers and teachers who are supported through skills and continuous professional development opportunities (FICCI and EY2013). Policymakers also reflected on the 'brain drain' in India, with 59% of them highlighting that there is currently a challenge in making sure India's skilled graduates stay in the country.

### Social enterprises

NGOs, whose main focus is providing education and skills development opportunities, have a key role to play in improving the employability and capacity building of the Indian workforce, particularly amongst rural and other marginalised communities, which may otherwise have only limited access to such opportunities. NGO representatives highlighted the current progress of Indian HE in preparing students and graduates for the Indian workforce, with 45% of the sampled NGOs suggesting that HE fails to prepare students for the global workplace in understanding international standards. NGOs also emphasised the importance of developing and driving a widening participation agenda that will enable India's tertiary age population, expected to reach 119 million by 2025, to access HE and higher-level skills development opportunities.

The next section highlights key challenges and opportunities for skills development within the HE context. Drawing on the detailed findings of this

report, key ideas for the future of Indian HE and its role in skills development are provided at the end of each stakeholder section. The report concludes with some preliminary insights for academic staff and HE leaders, students, employers, policymakers and NGOs interested in tackling the skills development challenge in India.

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## Stakeholder perspectives on challenges and opportunities



This section of the report highlights key challenges and opportunities for higher-level skills development and how HE can help overcome these. The findings represent the collective voice of the five stakeholder groups who participated in this study.

Suggestions for how Indian HE can scale up its efforts in skills development and capitalise on opportunities to improve its workforce productivity and capacity building were underpinned by five dominant themes:

- Improving the relevance of Indian HE curriculum and pedagogy to fit the world of work and international developments.
- Embedding entrepreneurship, innovation and world-leading research culture to improve the Indian HE system.
- Embedding internationalisation at the core of Indian HE.
- Providing an employer engagement framework for collaboration and input into the design, development and delivery of Indian HE.
- Enabling widening participation and equality to educate and skill India's youth talent.

#### Improving the relevance of Indian HE curriculum and pedagogy to the world of work and international developments

Overall, respondents highlighted that improving the relevance of Indian HE curriculum and pedagogy across universities and colleges will enable them to address the rapidly-changing world of work and incorporate key international developments. Views from individual stakeholder groups revealed the following:

- With the future of work in mind, academic staff felt that the Indian government should rethink how curriculum development at universities is approached. Staff highlighted that policy level interventions are needed to take account of developments so that HE curriculum and pedagogy can be adapted to respond to these developments.
- With Indian HE courses being still largely theory-based, the development of practice-based HE curriculum and pedagogies stood as an important consideration for the future of Indian universities from the perspective of students. Some students

felt that the introduction of extra-curricular activities, compulsory industrial experience and entrepreneurship development programmes may contribute to improving the relevance of Indian HE curriculum and pedagogy.

- Considering the relevance of Indian HE curriculum and pedagogy to the future world of work and international developments, employers felt that the setting of international standards in Indian universities and the standardisation of skills developed at university can contribute to a better fit of the Indian HE system to current international developments.
- Equally, policymakers suggested that the Indian HE curriculum and pedagogy alongside the skills development framework are lagging behind other countries' education frameworks and skills systems. Building on employers' perspectives, policymakers also highlighted that aligning India's education and skills development standards with international standards is an important consideration in moving forward. This will enable the Indian HE sector to become more competitive and develop graduates who are fit for both the Indian and international labour markets.
- NGOs felt that there are some fundamental challenges that the sector needs to focus on in line with taking actions to ensure that Indian HE is fit for the rapidly evolving world of work. Alongside taking steps to improve the relevance of curriculum and pedagogy associated with the future workplace and international developments, NGO representatives suggested that ensuring equality in improved curricular and pedagogic provision is of key importance.

#### Embedding entrepreneurship, innovation and world-leading research culture to improve the Indian HE system

All respondents highlighted that initiatives aimed at embedding entrepreneurship, innovation and the promotion of a world-leading research culture will contribute to a more competitive Indian HE system with more employability and skills development opportunities for students. Individual views were as follows:

- Academic staff and senior leadership in HE highlighted that government spending on education and research is important for the future of Indian universities, particularly in light of opportunities for HE to address India's 'grand challenges'. Staff felt that HE should serve as a platform for students to transform India through innovation in education and research.
- In addition to highlighting the importance of developing more vocational courses in universities, students emphasised the importance of a provision of opportunities for them to develop their entrepreneurship and innovation potential and acquire hands-on experience through real-life projects. Students highlighted these opportunities, which they felt should be embedded in Indian HE.
- Building on the perspectives provided by staff and students, employers also suggested that entrepreneurship modules should be embedded into HE degrees in order to narrow the gap between the provision in Indian HE and the rapidly evolving world of work and improve the Indian HE system in general.
- Entrepreneurship, innovation and quality research are important areas of work that policymakers felt have the potential to scale up and support the Government's efforts in skilling India and improving the productivity of the country's workforce. Alongside higher-level skills development, policy makers felt that research and innovation hold a prominent place in the HE sector and that more resources should be channelled at these two initiatives to enable improvements in the Indian HE system.
- NGO representatives suggested that innovation should be deeply rooted in the HE sector in India moving forward. This innovation in the Indian HE system, according to NGOs, should be enabled through the provision of a better learning environment, challenging and internationally relevant curriculum and graduate employment opportunities.

#### Embedding internationalisation at the core of Indian HE

Amidst current challenges and the lack of innovation and good practice in the curriculum, skills development and employability across the Indian HE sector, respondents highlighted the importance of embedding internationalisation and good practice from abroad at the core of institutional mission, vision and practice. Additional perspectives included:

- Despite the progress which has been made in introducing internationalisation and developing international and professional standards in Indian HE, academic staff and senior leaders in HE felt that progress on such initiatives is isolated. Consequently, staff called for the scaling up of initiatives aimed at internationalisation on an institutional and sectoral level.
- Students emphasised the importance of embedding internationalisation in their courses. They highlighted that the top three higher-level skills that they feel they do not have the opportunity to develop at university are increasingly under the 'global' banner and are creativity, a global mindset and cross-cultural communication. Internationalisation of Indian HE will have an important role to play in developing such internationally focused skills and competencies.
- Employers also highlighted the importance of embedding internationalisation by suggesting that international exposure of faculties and students would contribute to the introduction of international standards and the adoption of good practice by Indian HE institutions. Industry representatives also felt that students in Indian universities should be given more opportunities to take part in outward mobility programmes and learn from international immersion.
- Policymakers felt that global awareness and exposure to international affairs and developments are important determinants that will help students understand how to navigate an international work environment. However, at the present time, the majority of students in India do not have access to such opportunities.
- NGOs felt that internationalisation should be encouraged not only at HE institutions, but also at national and state levels. NGO representatives



highlighted that there is a growing recognition of the importance of a greater openness of Indian universities to international HE providers, who can bring about good practice in higher education and skills development.

#### Providing an employer engagement framework for collaboration and input into the design, development and delivery of Indian HE

Amidst perceived challenges to enable deeper university-industry collaboration, respondents emphasised the importance of providing opportunities for employers to actively participate in the design, development and delivery of education and employability-driven initiatives.

- Academic staff highlighted that making students workforce-ready requires fundamental changes to the curriculum that include not only the development of outcome measures, but also the provision of opportunities for students to be exposed to practice through employer engagement and interaction.
- Employers themselves advocated the importance of closer collaboration with job creators, regardless of whether employers reflect the private sector, government or not-for-profit organisations. They felt that proactive university-industry collaboration is critical so that universities can understand what higher-level skills are required and be able to adapt their curriculum provision to respond to these requirements.
- Policymakers felt that one opportunity to promote university-industry collaboration could be the introduction of employer-led modules focused on skills development created in partnership with HE institutions. They suggested that these specialised modules may well focus on developing skills in demand across key sectors of the Indian economy, which can supplement the mainstream curriculum.

#### Enabling widening participation and equality to educate and skill India's youth talent

Enabling access to HE and higher-level skills development opportunities for students from different socio-economic backgrounds is something that students and NGO representatives felt should be addressed as it represents a fundamental challenge for India due to the relatively large size of its youth—tertiary

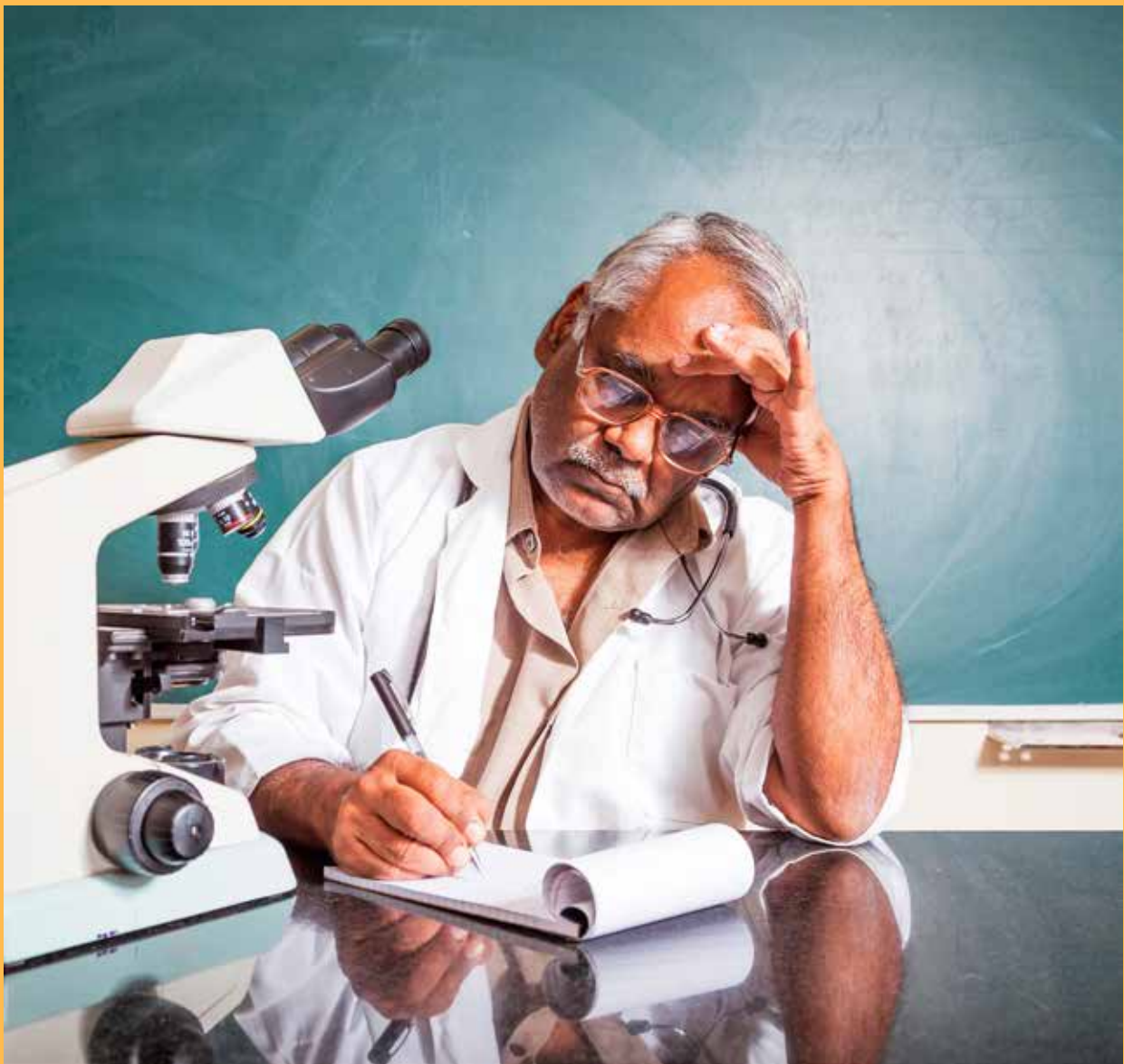
age—population. Representatives from all stakeholder groups agreed that widening participation and inclusion, despite being a challenge at present, plays a key role in improving the productivity of the Indian workforce, as more young people will be employable and able to join the workforce.

- Students highlighted that India is a diverse country in itself and inclusivity of students from different backgrounds should be high on the agenda going forward to enable more young people to be educated and trained with a view to join India's ever-growing workforce.
- In light of this, NGOs suggested that universities should provide a level playing field for students who have come from rural areas and those from cities by creating opportunities that enables inter-learning between these two cohorts. NGO representatives felt that the inclusion of rural communities in education provision and skills development, coupled with more diversity in the recruitment of students and academic staff, has the potential to improve the employability prospects of many rather than a few.
- Employers, HE leadership and government representatives acknowledged the importance of promoting this agenda but did not provide ideas on how stakeholders interested in HE and skills development can scale up their efforts to enable more students from under-represented communities to participate in HE and skills development initiatives.

The following five sections provide in-depth discussions of the findings summarised above, by stakeholder group. Individual case studies are also provided.

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## Higher education perspectives: Academic staff and leaders



Academic staff and senior leadership have a key role to play in higher-level skills development in Indian HE. The number of academic staff in Indian HE has grown from 1,247,453 in 2011-12 to 1,518,813 in 2015-16 (MHRD 2016).

This section presents how academic staff view skill development initiatives and the state of institutional employability practice in Indian HE.

### EXPERIENCE OF INDIAN HE

#### Understanding international developments

Indian HE aspires to prepare students for the global workplace in terms of understanding international developments, but there is more to be done, particularly in blending technical education with opportunities to develop cross-disciplinary knowledge and soft skills, which is an evolving global trend.

India, through its IITs (Indian Institutes of Technology), have introduced humanities modules to science and technology degrees to bridge this gap. This move by IITs indicates the recognition of interpersonal and other soft skills as important. However, 42% of the academics who were surveyed felt that this good practice is not consistent across the board.



42% of academic staff and leadership feel that Indian HE is unable to prepare students for the global workforce in terms of understanding international developments.

Internationalisation is a growing trend in global HE and Indian universities have already taken steps towards elevating internationalisation into a strategic institutional agenda. Setting international standards, establishing student and staff exchange programmes with international universities and creating an international environment on campus are initiatives staff felt can help prepare students for the global workplace in terms of understanding international developments. Respondents highlighted a number of additional resources that they felt would be valuable in further developing international and professional standards in Indian universities:

- Facilitation of international research collaborations
- Development of student exchange programmes with partner institutions
- Resources to enable capacity building and career development of staff
- Online resources, including the introduction of MOOCs (Massive Open Online Courses)

Respondents felt that progress has been made in bringing in cross-disciplinarity, introducing internationalisation and developing international and professional standards in Indian HE but such initiatives have been done in pockets, across fewer courses and institutions.

#### Staff, resources and facilities on campus

Equally, Indian universities need to be equipped with the necessary staff, resources and facilities students require to progress into the Indian workforce or pursue a career abroad. These factors facilitate the provision of employability support and skills development opportunities. Amidst India's diversity in HE provision, including state universities, private universities, IITs and IIMs, staff felt that none of these providers are equipped enough to help students with skills development and prepare them for the future.



50% of academic staff feel that Indian universities are equipped with the necessary staff—academic and professional—that students require to progress into the Indian workforce or pursue a career abroad.

Resources—including learning materials—and facilities—including labs, pods, technology—alongside classroom infrastructure to accommodate the often large classes of students, have been highlighted as a challenge with only 51% of respondents indicating that universities are equipped with the necessary facilities required by students.

The level of preparedness of academic staff and the fairly limited training opportunities have been identified as another pertinent challenge for Indian HE in ensuring that students are more employable. Academic staff were seen as key to improving the quality of teaching and the level of embeddedness of pedagogic innovations into university courses. Academic staff and senior leaders felt that government interventions are required on both educator level as well as student level to address the need to develop staff, resources and facilities on campus.

**Relevance of Indian HE curriculum and pedagogy**

The provision of HE curriculum and pedagogy that offers relevant and current knowledge, skills and competencies, and training development opportunities is central to ensuring that students at universities are able to develop the necessary skills to progress into the workforce.

Development of course content and the upgrade of syllabus takes considerable time and requires approval on various levels. Consequently, innovation in the provision of knowledge is seen as a lengthy process, particularly in state institutions. Despite this, 81% of surveyed staff felt that curriculum and pedagogy offer relevant and current knowledge. This is not, however, the case with offering skills and competencies and training development opportunities.



48% of academic staff and leadership agreed that Indian HE curriculum and pedagogy offer relevant and current training development opportunities.

One important aspect of ensuring the relevance of curriculum and pedagogy to industry requirements is the provision of training development opportunities and providing the opportunity for students to acquire certain skills and competencies during their time at university. Yet, only 48% of the surveyed academic staff and HE leadership felt that the Indian HE curriculum and pedagogy offer relevant and current training development opportunities.

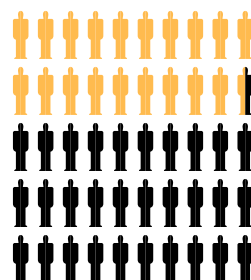
Students manage to complete a degree without acquiring the course skills required by employers. They struggle with transferable skills. Employability in Indian HE is really a problem.  
— Academic Staff, Chennai

**SKILLS DEVELOPMENT AND INDIAN HE**

Indian universities, alongside employers and industry representatives have a key role to play in skills development and preparing students for the world of work. This section of the report describes academic staff and senior leadership perspectives on the role of universities in preparing students for the rapidly changing workforce and workplace and the skills and attributes students find difficult to develop through Indian HE.

**Indian HE and the rapidly changing world of work**

The rapidly changing world of work requires Indian universities to adapt their curriculum and innovate in pedagogy to enable students to develop a range of skills and attributes. Yet, only 61% of academic staff and HE leadership felt that Indian HE prepares students effectively.



39% of academic staff and leadership agreed that Indian HE fails to prepare students for the rapidly changing world of work.

Major global forces are reshaping the workforce and workplace and Indian HE needs to stay abreast of such trends, although this proves to be challenging at present due to a number of factors such as the lack of academic training, out-dated curriculum and the slow adoption of international standards and good practice.

**Learning outcomes that are difficult to acquire through Indian HE**

The development of learning outcomes, such as certain skills, subject knowledge and competencies is important, but Indian students may find it difficult to acquire these through HE in its current state.

Academic staff and HE leadership participating in the survey were asked to provide their perspective on the top three learning outcomes that students find difficult to acquire through Indian HE. 71% of them felt that the effective use of relevant technology was a key skill, albeit difficult to develop in the classroom. Equally, the inability to demonstrate the application of relevant skills and competencies and having the opportunity for industry exposure were rated as the second and third top learning outcomes that students find difficult to acquire during their time at college or university.

Interview respondents felt that students were unable to develop both specialist knowledge in the students' own domain as well as transferable skills, such as work ethic and integrity. Students lack soft skills that are specific to South-East Asian conditions that will enable them to flourish in the workforce.

Critical thinking is one. Organisational thinking is another skill that students in India are lacking. Learning to work within systems and getting methods to work for you are also important skills that students find difficult to develop.

— Academic Staff, Delhi

Alongside specialist knowledge and soft skills, findings suggested that some students failed to demonstrate some basic skills and attributes, particularly in government-led universities, such as the art of formal and academic writing, presentation and articulation skills.

## THE FUTURE OF INDIAN HE

Academic staff and HE leadership provided their ideas on the key challenges of Indian HE that require action as well as their top three suggestions for the future of Indian universities and their role in skills development.

### Key challenges that need to be addressed in Indian HE

India offers a range of opportunities for HE, its economy and society due to its favourable demographics; however there remain a number of challenges related to quality, widening participation and ensuring employability outcomes of HE for the majority—if not all—students.

However, the challenges facing Indian HE included the lack of a student-centred classroom environment. Staff felt that universities should focus on students becoming more critical, more innovative, and more creative.

The availability of skilled academic faculty and key infrastructure was seen as yet another key challenge that requires further attention from policymakers. This, alongside the lack of industry exposure and opportunities for application of knowledge contributed to the inability to create an enabling environment for students to develop their employability potential.



96% of academic staff and leadership felt that there is significant value in establishing international collaborations and partnerships.

96% of staff highlighted the perceived significant value in establishing international collaborations and partnerships between Indian universities and their counterparts internationally. Staff, nevertheless, suggested that Indian universities have a long way to go in terms of demonstrating openness to international developments in HE and the adoption of good practice, despite seeing significant value in the establishment of international collaborations and partnerships with institutions abroad.

### Academics' ideas for the future of Indian HE

Staff provided over a hundred ideas on how they feel Indian HE can improve to meet the demands of current international developments and the rapidly evolving world of work. Dominant themes included the need to address the perceived gap between academia and industry, adoption of predictive models to better align courses to industry requirements, and the importance of large-scale investment in education and research. The top three ideas are described on the next page:

### Idea one

The gap between university curriculum and current developments in the world of work is something that academics and leaders in Indian HE felt needs to be addressed. Making students workforce-ready requires one fundamental change in curriculum—to build outcome measures in the Indian HE system.

Exposure to practice through employer engagement and collaboration, alongside nurturing entrepreneurship were also high on the future HE agenda for academics and should be integrated:

We need to create space for entrepreneurship in Indian higher education. If you spread out entrepreneurship, because the Government's focus is to create jobs, that's important. So one needs to inculcate an entrepreneurial spirit in students as jobs for life is no longer the norm. Entrepreneurship will play a big role in creating the jobs of the future.

— Academic Staff, Chennai

### Idea three

Government spending on education and research is important for the future of Indian universities, particularly because of the potential for HE to address India's grand challenges. Staff felt that HE should serve as a platform for students to transform India through innovation in education and research, which will enable them to develop an innovative mindset. Academic staff also suggested that the state should increase its spending on HE but intervene less to create space for innovation in curriculum.

### Idea two

Government spending on education and research is important for the future of Indian universities, particularly because of the potential for HE to address India's grand challenges. Staff felt that HE should serve as a platform for students to transform India through innovation in education and research, which will enable them to develop an innovative mindset. Academic staff also suggested that the state should increase its spending on HE but intervene less to create space for innovation in curriculum.

## **Case study: Dr Shweta Deshpande**

### Deputy Director, Symbiosis School for Liberal Arts Symbiosis International University

#### Experience of Indian HE

India is so diverse in terms of education providers, such as state universities, private ones and others but none of these providers are equipped enough to skill our students so that they are ready for the future. This problem is embedded in history. Historically, India was an unequal society and colonialism added to that inequality. Some communities may still not have the capacity to engage with education. The bulk of educators were not able to access capacity building in terms of language, resources, and technology.

The problem is with human resources and teachers and trainers who lack in capacity. Teachers are not able to fully engage with students and understand their needs. So it's a vicious circle where we have a lack of resources, which leads to unproductive teachers and trainers. Not because teachers and trainers don't want to learn but because we may need more resources.

#### The role of Indian HE in skills development

Learning to think and sift through information will be a very important skill in the future. Universities need to help students to understand and interpret data. Second, we need to teach our students adaptability. Students need to be adaptable and to learn fast and have a very open mind. Thirdly, we need social and soft skills. Social skills of being able to say what you want to say, being approachable, having the confidence to make mistakes.

#### Ideas for the future of Indian HE

First of all there needs to be a dialogue between people who are leading on education policy, people who employ the students who graduate and we need to also look at what is happening in the rest of the world. India HE system has always been 20 years behind. We need to address this; otherwise India will suffer from brain drain.

Secondly, the world is moving towards an inter-disciplinary platform and we are not doing that. We need a shift in our education ideologies and curriculum, which moves from discipline-centric to a multi-disciplinary curriculum.

Only if you take that route, a student who is learning science will acquire soft skills, for example. In the absence of this multi-disciplinarity we are not creating competent students nor we are creating skillsets that are applicable in industry. Today we are talking about research, innovation and critical thinking. To create that education, you need to change the model but it has to be gradual change.

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## Higher education perspectives: Students





Students act as co-creators of their learning and are the primary recipients of education and skills development interventions. Yet, the voices of students on the role of HE in higher-level skills development are often unheard and this report provides a platform for students to orate their perspective on the matter.

This section of the report explores Indian students' perspectives on their experience of Indian HE, the role of universities in skills development and graduate employability, as well as the skills and competencies developed at university. Students also provide some key ideas for the future of Indian HE.

### EXPERIENCE OF INDIAN HE

Indian students provided insights on a number of themes related to their experience of Indian HE, including the relevance of curriculum and pedagogic models adopted by Indian universities, the strengths of Indian HE in developing employability in students, the preparedness of staff and the state of resources and facilities on campus, and learning outcomes that are difficult to acquire at university.

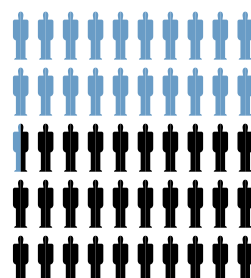
#### Relevance of Indian HE curriculum and pedagogy

Universities that offer relevant and current knowledge, skills and competencies, and training development opportunities are central to developing employable graduates. When asked whether their course offers relevant and current knowledge, skills and competencies, and training development opportunities, Indian students felt that this depends, to a large extent, on the nature of the discipline and course chosen by the student.

Disciplines like engineering and medicine were thought to provide a strong employability-driven curriculum and pedagogies, such as the inclusion of placement opportunities, whilst disciplines such as humanities and liberal arts needed to do more to ensure that adopted curricular and pedagogic models are aligned with current developments in the world of work.

Despite the 87% of the surveyed students who indicated that their course offers relevant knowledge, only 41% of them agreed that the curriculum and pedagogy at Indian universities offer relevant and current training development opportunities. Some students felt Indian HE has already taken steps to embed practical elements in courses but the

curriculum was still very much subject-driven and, as such, it may not allow for acquiring a wider perspective of the subject, knowledge and relevant practical experience.

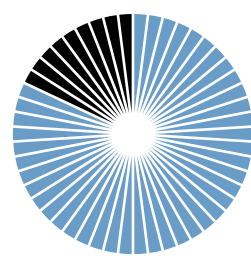


41% of Indian students agreed that the curriculum and pedagogy at Indian universities offer relevant and current training development opportunities.

I think Indian HE tries to bring as many aspects to courses as possible, however, whilst some courses have been brilliant, others are not quite there yet.  
— Liberal Arts Student, Pune

#### Strengths of Indian HE in developing employability in students

Key strengths of Indian HE, such as skills, subject knowledge and competencies support Indian graduates to be successful in securing employment either in India or internationally. Some students felt that Indian HE is very good at providing a good theoretical knowledge, equipping students to work under pressure and complete tasks within a short time-frame, while others believed that developing research skills and questioning what you are being taught are among the key strengths of Indian universities.



82% of Indian students agreed that universities enable them to acquire the necessary subject knowledge.

Students had the opportunity to provide the top three strengths of Indian higher education in helping graduates be successful in securing employment. Enabling students to acquire the necessary subject knowledge was seen as a top strength of Indian HE, with 82% of students agreeing that universities

demonstrate good performance in the provision of a sound theoretical basis to teaching and learning.

On the other side of the spectrum, only 20% of students felt that Indian universities offer a relevant and up-to-date curriculum, while only 9% agreed that HE promotes relevant pedagogic practice.

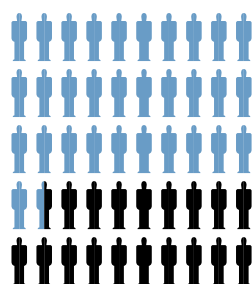
A lot of the courses are very academic intensive and I feel once you go through it, and once you go through the testing system, it gets easier to get employed. We have group assignments and projects, which help us develop a range of skills.

— Liberal Arts Student, Pune

### Staff, resources and facilities required by Indian students

The provision of skilled staff is central to the development of current knowledge and skills, whilst up-to-date resources and facilities act as an enabler for students to develop their employability potential. Despite recent improvements in Indian institutions, such as the provision of a good level of infrastructure and Internet connectivity, students felt that there is more to be done to ensure that they are receiving a good quality education, which was down to academic staff, resources and facilities.

Students felt that they do not have access to good learning and teaching equipment, such as labs and online resources, with 30% of students indicating that their campus is not equipped with the necessary resources—e.g. learning materials—and facilities—e.g. labs, pods, technology—that they require in their learning.



63% of Indian students felt that their campus is equipped with the necessary staff, both academic and professional, that they require to progress into the workforce.

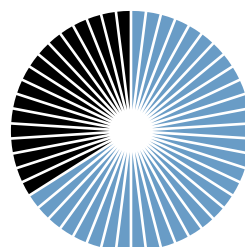
Teaching was also seen as an important factor whereby students suggested that Indian universities may not have access to enough academic staff and that often the available academic staff lacked relevant teaching skills.

I feel like the teaching quality is what we should emphasise on. Universities don't have enough professors and the professors they have don't have sufficient skills to teach.

— Engineering Student, Chennai

### Learning outcomes that are difficult to acquire through Indian HE

The lack of standardisation of HE quality and provision in India, mainly due to its rapidly growing and diverse HE sector, can have an impact on the learning outcomes that students have the opportunity to acquire through courses. Immersion in learning through technology and using technology to develop certain skills is something that students felt is difficult to acquire during their time at university. 66% of students who were surveyed felt that the most 'difficult to acquire' learning outcome at Indian universities is the effective use of relevant technology that enables deeper learning and provides skills development opportunities. Application of relevant skills and competencies and industry exposure were the second and third most 'difficult to acquire' learning outcomes, with 55% of students suggesting that Indian HE fails to provide opportunities for learning through practice and hands-on experience. The lack of practical knowledge was echoed by students suggesting that Indian HE is still largely theory-driven.



66% of Indian students felt that the effective use of technology is the most important learning outcome that they find difficult to acquire during their time at university.

Thinking outside the box and the development of communication and collaboration skills were also highlighted by students as important learning outcomes that they fail to develop at university.

Science courses offer a very individualistic approach and there is hardly any collaboration among students that will help them develop their collaboration and communication skills. So, communication skills is something I feel that really needs to be inculcated in Indian higher education.

— Computer Science Student, Pune

## SKILLS DEVELOPMENT AND INDIAN HE

By 2025, India will have the largest tertiary-age population in the world—119 million—suggesting that students and graduates will form a considerable part of the Indian workforce going forward. Developing a skilled workforce is imperative and skills development is at the heart of recent reforms reflected in a number of government ministries and organisations such as MSDE, NSDC and SSCs.

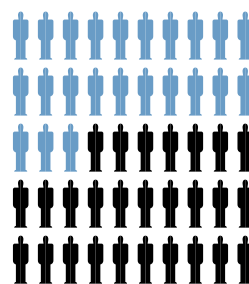
This section of the report explores student perspectives into the role and ability of Indian universities to prepare them for global careers and the rapidly-shifting world of work. It looks at the top three skills students think are important but difficult to develop, alongside the opportunities for Indian students to engage with employers and access careers and employability services at university.

### Preparing students for global careers and the world of work

Preparing Indian students for the rapidly changing world of work and indeed for global careers is vital, particularly in light of the Government's aspirations to make India a hub for talent on a global level (FICCI and EY 2016). Shifting demographics on a global level point to an emerging trend whereby millions of Indians are expected to join the workforce in countries experiencing talent shortage due to an ageing population.

Only 54% of Indian students felt that their university prepares them with the necessary skills and attributes to succeed in the global workforce and workplace. They suggested that extra-curricular activities, which are primarily available in private universities, can help students develop a global mindset enabling them to adapt quickly to new environments and excel.

The nature of work is changing on a global level and students need to be able to acquire skills and knowledge that will enable them to adapt quickly to the fast-paced environment. Yet, only 47% of students felt that their studies prepare them for the rapidly changing world of work characterised by the highly competitive job market as well as technological disruptions such as automation and robots. This number was even lower, 46%, in relation to student preparedness for the global workforce and workplace.



46% of Indian students felt that their studies fail to prepare them for the global workforce and workplace.

We live in an ever-changing world and to be able to adapt to changing environments and pick up whichever skills are necessary is important.

— Liberal Arts Student, Pune

With this in mind, findings suggest that students would like to see technical education, such as engineering and science disciplines opening up to allow for cross-disciplinarity, which students believe will be important in terms of developing broader skills and knowledge.

### Important skills difficult to acquire through Indian HE

The top three skills that students felt are important in going forward but they still find difficult to acquire through Indian higher education are, to a large extent, influenced by rapid globalisation and the opportunities it brings with it.

- Creativity
- Global Mindset
- Cross-cultural communication

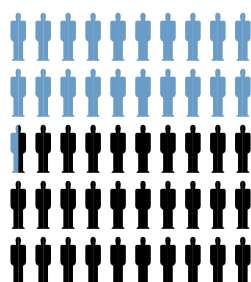
Students should be able to understand the culture differences because what might be acceptable in India might not be in other parts of the world. Indians are very crisp and straight to the point and others might think that this is rude.

— Informatics Student, Pune

Internationalisation of Indian HE will have an important role to play in developing these top three skills. The rapidly evolving workforce and workplace require students to develop new skills. Students felt that 'global' skills, such as international relations, diplomacy, and cross-cultural communication, alongside the fourth, fifth and sixth most important skills, namely critical thinking, adaptability and open-mindedness, should be embedded in Indian HE.

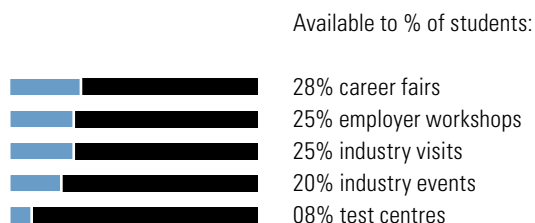
### Access to careers and employability services and employer engagement

Access to careers and employability services is essential to connect students with graduate level opportunities as well as giving them industry exposure. Yet, 41% of students indicated that they do not have access to employability and careers services at their university or college. Students at private institutions had more opportunities to enhance their employability through initiatives overseen by careers and employability services, such as real-life community projects, industry visits and employer guest speakers.



41% of Indian students indicated that they do not have access to employability and careers services at their institution.

59% of students suggested that they have some form of access to employability and careers services at their institution. Key opportunities provided by employability and careers services in India include:

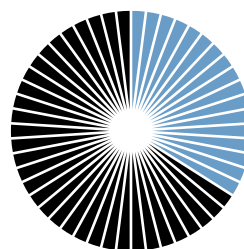


Employer engagement is another important aspect in developing the employability of Indian students and graduates. Students had only limited opportunities to engage with employers on their course, predominantly through career fairs in 57% of the cases, and industry visits in 53% of the cases. However, students did not mention any employability development opportunities available to them and involving hands-on, practical experience, such as internships, real life company briefs and industry projects.

### THE FUTURE OF INDIAN HE

#### Intentions to study further and seek employment in India and internationally

The number of Indian students on HE courses outside India is soaring, with 350,000 students in universities across the world in 2015 - the second largest international student cohort after China (Mathai 2016). Drawing on their intentions to study further, 76% of Indian students indicated that they have considered studying overseas as part of their future plans. Throughout the interviews, the majority of students highlighted that they would like to study abroad, predominantly on a postgraduate level, if they have the opportunity to do so. Considering their intentions to look for employment after graduation, 34% of students indicated that they intend to look for employment overseas, with 50% currently exploring both options and 16% who highlighted that they would like to pursue employment opportunities in India.



34% of Indian students indicated that they intend to look for employment overseas after graduation.

#### Students' ideas for the future of Indian HE

Students provided over 80 ideas on how they feel Indian HE can be improved to respond to India's capacity, quality, and equality challenges, in addition to current international developments and the rapidly evolving world of work. Dominant themes included the importance of promoting practice-based education, ensuring consistency of the quality of education and standardisation of skills development, and matters of equality, inclusivity and the wider role of universities in society.

### Idea one

The introduction of institutional rankings and some standardisation efforts in the Indian HE sector has led to considerable progress but challenges remain ahead. Students felt that more could be done to promote a consistency of the quality of education and standardisation in skills development with the view to ensure equal skills development opportunities for students regardless of their institution.

Students suggested that the quality of teaching needs to improve sharply in Indian universities going forward as should the opportunities for everyone to acquire a set of key skills and attributes that will enable them to progress into the workforce.

Skills can be standardised in the future and everyone should have the opportunity to acquire a set of skills. I think what would be important is the implementation of a framework for skills with a minimum set of skills for everyone.

— Liberal Arts Student, Pune

### Idea two

With Indian HE courses being still largely theory-based, the development of practice-based HE curriculum and pedagogies stood as an important consideration for the future of Indian universities from the perspective of students.

Some students felt that the introduction of extra-curricular activities, compulsory industrial experience, entrepreneurship and innovation development programmes may bridge this gap. Other students highlighted the importance of developing more vocational courses in universities, alongside opportunities for students to acquire hands-on experience and real-life projects.

In general there's no vocational courses and this is something that we lack in India completely. People taking up vocational courses should be recognised for it, certified for it. Vocational education is something

that we can really lead on in India because we have a huge population, which is less formally educated.

— Psychology Student, Pune

### Idea three

Students also felt that universities should nurture equality, inclusivity and play a bigger role in contributing to society. Within the context of equality, students also proposed the abolition of current practice to use marks as a criterion to judge their capacity when enrolling on a HE course. India is a diverse country in itself and inclusivity of students from different backgrounds should be high on the agenda going forward.

Universities should be able to give equal opportunities to all students who want to join a university, despite of cast and education status. I feel that will be important for Indian universities going forward.

— Media and Communications Student, Madras

Universities in India have traditionally been involved in politics. Students suggested that Indian HE should focus more on social issues, the bigger societal picture, the positive role of universities and the change that they can bring about in societies.

## **Case study: Gunasekhar Prasad**

### Engineering student University of Madras

#### Experience of Indian HE

Institutions like IITs and IIMs are good but engineering colleges are different thing. We don't know what engineering is even after four years of being at an engineering college. You will be surprised by the criteria for selecting a college teacher. I only need to pass the National Eligibility Test (NET) for teachers and I can become a teacher. Teachers' communication skills and subject knowledge are not being tested and this affects teaching negatively.

Finally, the inclusion of practical experience in Indian HE is important. Learning is one thing but practicing is completely another.

#### The role of Indian HE in skills development

The bridge between the industry requirements and university is not there. Communication skills are lacking. There isn't much investment in soft skills in general. We should focus on programming skills in the context of my subject field. Second, we should concentrate on developing communication skills. And the third most important skill is that students should be informed of the venues and opportunities available to them if they take a specific degree. Managerial skills are being overlooked and need to be developed. The administrative capabilities are lacking. The Government is also providing entrepreneurship programmes and more should be done in this direction.

#### Ideas for the future of Indian HE

First, Indian universities should be able to give equal opportunities to all students who want to join a university, regardless of their cast and education status. I feel that will be important for Indian universities in going forward. Second, universities have been involved in politics, largely, and it would be good if we can remove all of these politics from education. I believe we should focus more on social issues and challenges as opposed to politics. In this sense, universities should be able to play a bigger role in contributing to society.

## Industry perspectives: Employers



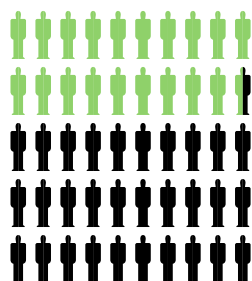
Indian industry and employers are the main recipients of graduate talent. There are 1.3 million businesses in India and their success, to a large extent, depends on the quality of graduate talent entering the workforce.

This section of the report provides industry insights into the state of workforce readiness of Indian graduates from an employer perspective. Key higher-level skills and competencies, current and future, which are sought after by employers, alongside the opportunities for capacity building through training and partnerships with universities, are also explored. Employers also provide their key ideas for the future of Indian HE.

### SKILLS DEVELOPMENT AND INDIAN HE

#### Preparing students for global careers

In light of the increasing globalisation and opening up of the Indian economy, preparing graduates who are ready to take on work assignments on a global level or at global businesses in India is imperative. Yet, only 39% of employers feel that Indian HE prepares students for the global workplace in terms of understanding international developments, good practice and exposure to international business models and approaches.



39% of employers feel that Indian higher education prepares students for the global workforce and workplace.

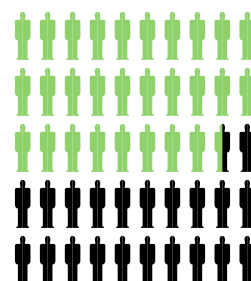
Surveyed employers felt that students lack awareness in terms of the latest developments in their respective field and global perspectives in general terms, in addition to being able to demonstrate only limited knowledge on future directions. A lack of exposure in international practice, norms and approaches, including the lack of training to adapt to the ever-changing requirements in the job market, was also highlighted as a pertinent issue that indicates that Indian students may not be adequately prepared for global careers.

Very few higher education institutes prepare students for global management - while the top 15–20 Management and Technical Institutes would have adequate to basic coverage in the courses on global issues, others will not even have a targeted preparation of the students in this area.

— Manufacturing Employer, New Delhi

#### Preparing students for the rapidly shifting world of work

Alongside globalisation, technology acts as a major disruptor within the world of work. The 2016 World Economic Forum report, the Future of Work, predicted that by 2020 more than one-third, or 35% of the skills that are considered important in today's workforce will have changed considerably. Hence preparing Indian students and graduates for the rapidly changing world of work and for jobs that do not exist yet is important.



57% of employers feel that Indian higher education fails to prepare students for the rapidly changing world of work

Only 43% of the surveyed employers felt that Indian HE prepares students for the rapidly changing world of work, which includes developments such as the highly competitive job market, automation, entrepreneurship and the gig economy. Employers felt that emphasis in Indian HE has been primarily on getting students ready for an exam, as opposed to getting them ready for the increasingly international and dynamic workforce and workplace. Other employers suggested that except for a few HE institutions, there is a general lapse in making students adapt to these changing requirements due to the limited opportunities for students to apply their knowledge outside the classroom. When the focus has been on teaching theory as opposed to developing practical skills, students are not equipped for the workforce when they graduate.

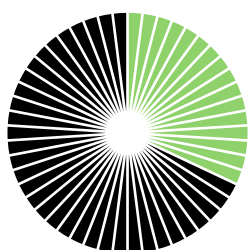


Students have good theoretical knowledge but they don't have enough hands-on experience or they haven't done internships. The real hands-on experience of having done something makes you challenge things and have a deeper understanding of your subject. Applied knowledge of concepts is lacking and a lot of the Indian graduates require a lot of training on the job as they are not fully ready.

— E-commerce Employer, Mumbai

### Staff, resources and facilities required by Indian students

Similar to academic staff and students, employers also had the opportunity to reflect on the state of the provision of key resources and facilities to aid students with developing their employability. In contrast to students and academic staff, fewer employers felt that Indian universities are equipped with the necessary staff, resources and facilities required by students, with the biggest gap being in the lack of provision of facilities, such as labs, pods and technology that expose students to practice-based learning, giving them the opportunity to undertake applied research. Employers suggested that good quality teaching and good resources is limited to fewer institutions like IITs and IIMs.



32% of employers feel that Indian universities are equipped with the necessary facilities, such as labs, pods, and technology required by students.

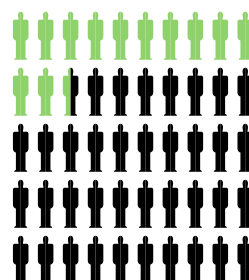
Only 39% of employers agreed that Indian HE is equipped with the necessary academic and professional staff and only 32% of them felt that universities provide the necessary facilities, such as labs, pods and technology, required by students on their course. Employers reflected on the challenge of attracting and retaining academic talent in Indian universities and colleges by suggesting that current remuneration poses challenges to attracting the best academic talent.

The theoretical basis of Indian teachers is very strong but they have to be trained a bit to be in line with new developments. There is also a scope for technology to be improved.

— Hospitality Employer, Pune

### Indian HE relationship with industry

University-industry partnerships are essential not only for the provision of employability opportunities to students such as internships and work placements, but also for developing employability skills and attributes through working in partnership with employers on real-life briefs and projects. Only 16% of the surveyed employers felt that the Indian HE sector's relationship with industry is open to collaboration and is able to meet industry needs.



25% of employers feel that the Indian HE sector's relationship with industry is closed and isolated from the world of work.

Employers felt that IITs and IIMs have good industry links but other institutions, which form the majority of all Indian universities, somehow fail to provide evidence of close relationships with employers. There are opportunities on the horizon to improve these relationships and, according to employers, universities and industry would benefit from working towards creating an ecosystem that is innovative, entrepreneurial and connects universities with industry talent and employment opportunities.

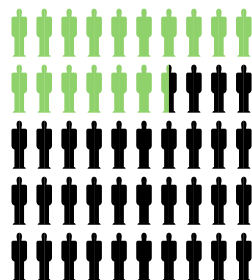
### REQUIREMENTS OF SKILLS AND COMPETENCIES

#### Indian HE graduates' skills and knowledge level

The ability of Indian graduates to demonstrate adequate levels of knowledge and skills developed is essential for them to be both employable and progress into employment through meeting employer needs. Yet, 67% of employers feel that graduates from Indian HE institutions are not able to demonstrate that they have the necessary skills and knowledge that they are looking for. Employers felt that the application of concepts is less demonstrable and a lot of Indian graduates require significant training on the job as they are not fully ready to contribute to their respective industry.

Students have good theoretical knowledge but they don't have enough hands on experience or they haven't done internships. The real hands on experience of having done something, makes you challenge things and have a deeper understanding of your subject.

— Technology Employer, Mumbai



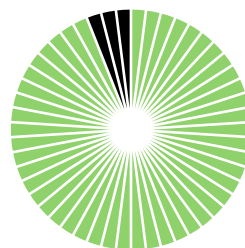
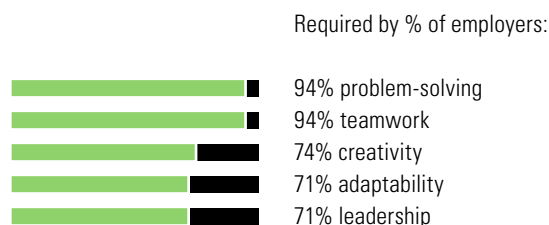
33% of employers feel that graduates have the necessary skills and knowledge that they are looking for in their industry.

Given how the Internet and technology is evolving, employers felt that graduates should have a more work-ready attitude, have a stronger understanding of what it takes to secure employment, particularly in cases where universities may not be adequately preparing them for their future careers.

Whilst the Indian HE system produces a lot of engineers and computer scientists, employers felt that graduate STEM talent are not fully ready to join the workforce. Not only do graduates lack specialist knowledge and experience but they also fail to demonstrate soft skills, which are becoming imperative regardless of the industry (World Bank 2016).

**Skills and competencies required by your industry**

The top five skills and competencies that are urgently required by employers in their sector were dominated by soft skills as opposed to more technical and specialist ones:



94% of employers named problem-solving and teamwork as the two top skills and competencies that are urgently required in their sector.

In light of these findings, coupled with recent trends in the world of work, such as automation and artificial intelligence, some employers identified that soft skills are indeed a key requirement in their industry. This trend is more evident across sectors of the economy that require human interaction, teamwork and people skills, such as the tourism and hospitality industry:

Soft skills are very important. Coping with stress and different people and teams is also important. We want to create experiences for our clients and experiences [that] are created by humans, not technology.

— Hospitality Employer, Pune

**CAPACITY BUILDING THROUGH TRAINING AND HE PARTNERSHIPS**

**Skilled professionals to train people required by industry**

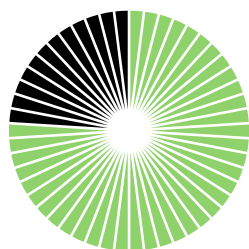
Employers had the opportunity to reflect on the availability of skilled professionals that are capable of building capacity through training and skilling people, including students and graduates, who are required for professions and projects in their respective sector. It was suggested that this capacity building is vital but perhaps not fully utilised by employers. Despite 61% of employers feeling that they have access to skilled professionals to train and skill people, they also felt that trainers are more often involved in basic training and consequently unable to provide more specialist training. Other employers indicated that there is a considerable shortage of professionals who can train people that can join a truly global workforce.

**Partnering with Indian HEIs to help train students**

Another key aspect of capacity building through the development of employable graduates is the establishment of sustainable partnerships between Indian universities and employers focused on training. 90% of employers indicated that they are willing to partner with academic institutions to help train

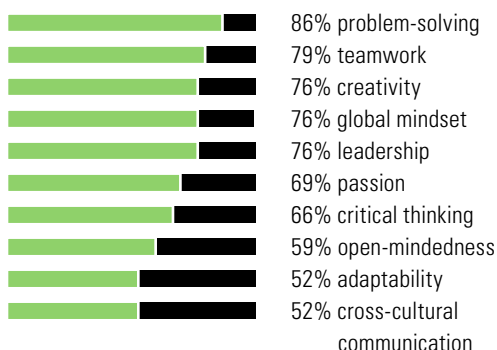
students through mentoring, voluntary placements or internships. However, challenges remain, particularly after employers voiced their concerns that the universities in India are disconnected from the world of work.

**Key future skills, attributes and competencies that will be sought-after by employers**



76% of employers named creativity and global mindset as key future skills that will be sought after by employers in India.

Key for % of employers:



**THE FUTURE OF INDIAN HE**

**Ideas for HE to address current international developments**

**Idea one**

Setting international standards and the standardisation of skills developed in HE in India is what employers felt can contribute to a better fit of the Indian HE system to current international developments. Employers suggested that international exposure of faculty and students would contribute to the introduction of international standards. Within the context of internationalisation of the student body, employers felt that students in Indian universities should be given more opportunities to take part in outward mobility programmes and learn from this immersion in education, research and professional practice. Indian universities should equally be welcoming international students as suggested by some employers. Yet, despite the relaxation of rules allowing universities and colleges to recruit as many as 15% of their students from overseas, only 30,423 international students enrolled in Indian institutions in 2016, which represents a drop of over 700 students when compared to 2015 according to the Association of Indian Universities.

This whole notion of skills and where we talk about setting international standards is key and something that is really missing. We need people at different levels who can contribute in different ways.

— Media and Journalism Employer, New Delhi

Equally, the introduction of cross-cultural training and exposure to globally accepted work practices, as employers stated, needs to become part of the curriculum if Indian HE is to address current international developments.

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## Ideas for HE to address the rapidly evolving world of work

### Idea two

Measuring employability outcomes for HE courses and the introduction of employability rankings was also seen as an important future direction for the Indian HE sector in its efforts to align its curriculum with industry requirements. University employability rankings were launched on a global stage in 2016 through the introduction of the Times Higher Education's Global University Employability Rankings and QS Graduate Employability Rankings. Yet, Indian HE representation in global employability rankings is generally low. Only seven Indian HE institutions feature in these rankings to date and they are predominantly IITs and IIMs, alongside the University of Delhi.

In light of these developments, employers felt that the Indian HE sector has the opportunity to develop a set of metrics and rankings to measure the effectiveness of individual institutional programmes in developing the employability of their students.

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In light of these developments, employers felt that the Indian HE sector has the opportunity

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## Case study: Sandeep Despande

Former General Manager

Alibaba India and Yahoo India

### The role of Indian HE in skills development

We have hired different kinds of talent for different kinds of roles. Very few companies in India have structured programmes and resources to hire fresh graduates and spend time training them. I think the emphasis in Indian higher education has been more about getting students ready for an exam. It's not that much about getting them ready for the workforce. I think that's one area I personally think needs to change.

Indian universities should move away from exam-driven education and learning concepts to applying these concepts. Students should be given industry exposure; they should be introduced to and given training in international practices and standards. That's the kind of learning that needs to happen.

### Talent mismatch in India and graduate skills

Students in India have a really good theoretical knowledge, but they don't have enough hands-on experience as, for example, they haven't had the opportunity to do internships and company placements. The real hands-on experience of having done something makes you challenge things and have a deeper understanding of your subject.

Applied knowledge of concepts is lacking and a lot of the Indian graduates require a lot of training on the job, as they are not fully ready to join the workforce. Companies may not necessarily have the capacity to provide this training in skills development.

In terms of skills, I would say communication skills and being team players is what the majority of Indian graduates lack. Usually we are very competitive individually but we are not good team players and this is evident in Indian graduates.

### Ideas for the future of skills development

We need closer collaboration with job creators, which could be the private sector, government or non-profit organisations but more collaboration so that universities can understand what skills are required and they adapt their courses. I think our education is probably too old and has not changed much in the past two or three decades. More interventions are needed to attract employers on campus.

Secondly, the attraction and development of skilled academic talent, who take up important roles such as professors and teachers, is also important. The role of teachers and professors in Indian universities needs to be revisited in light of recent developments, such as the Khan Academy and Google classrooms.

Thirdly, there are challenges around the quality and scale of HE provision. There is work to be done if we want India to become a competitive economy. We don't have enough human resources and infrastructure at universities and colleges at present to educate and skill the youth. There are massive gaps in the number of students you can teach, alongside the number of universities required in India.

## Government perspectives: Policymakers



Policymakers play an important role in higher-level skills development in the country. The recently established Ministry of Skills Development and Entrepreneurship is set to champion this agenda alongside other important players such as NSDC, SSCs and CII.

This section of the report provides insights into the state of the policy and planning of skill development and the Indian workforce including key priorities, the public sector's requirements of skills and competencies, the state of brain drain in India, and the role of HE in skills development. This section concludes with policymakers' key ideas for the future of Indian HE.

### SKILLS DEVELOPMENT AND INDIAN HE

#### Preparing students for global careers

Understanding international developments is crucial in preparing students for the increasingly global workforce and workplace. Yet, opportunities for Indian students to develop global competencies through immersion in international perspectives are not evenly distributed across the sector. Only 55% of policymakers felt that Indian HE prepares students for the global workplace in terms of understanding international developments and standards.



45% of policymakers felt that Indian HE fails to prepare students for the global workplace in understanding international standards.

Conventional Indian HE is still very content centric and is on its way to becoming more Industry oriented, which means the introduction of professional conduct and international standards. Yet, such developments often take a backseat in HE institutions across India.

— Associate, Department of Higher Education, New Delhi

Students at major universities in big Indian cities are exposed to co-curricular and extra-curricular platforms—such as symposiums, conferences and competitions—which provide a platform for them to develop awareness pertaining to international affairs

and developments. Global awareness, policy-makers felt, is key for students to understand how to navigate through an international work environment but they emphasised that the majority of students may not yet have access to such opportunities. With the private HE sector in India becoming more competitive, initiatives involving outward student and staff mobility are more common but they are limited in provision to fewer universities.

#### Preparing students for the rapidly shifting world of work

The world of work is changing at a rapid pace and the Government initiatives such as Skills India aim to address this challenge but also provide an opportunity to develop the next generation of graduate workforce in India. Recent attitudes by policymakers suggest that there may be a long way to go. 70% of policymakers felt that Indian HE fails to prepare students for the rapidly changing world of work and recent developments contributing to shifts in the workforce and workplace.



30% of policymakers felt that Indian HE prepares students for the rapidly-changing world of work.

Some policymakers commended the quality of the Indian HE system in light of its theoretical base, but felt that the practice dimension involving real-life industry exposure may be missing. Others suggested that there is no focus on creating labs, inviting industry in the classroom and aligning industry requirements to university courses.

In the UK, teaching and training is conducted by professionals and people from the industry and we still haven't reached this level of integration of industry in universities. This kind of mindset is not there and I don't think we are ready.

— Director, Sector Skills Council

Despite challenging rhetoric, some policymakers emphasised the progress that has been made by the Indian Government in the face of MSDE in its efforts to elevate the skills development agenda. One example is the largest skills development scheme, Skills India,

which has been created by MSDE and aims to train 400 million people by 2022.

Before the setting of MSDE, there was no proper ecosystem in skills development. Some standardised models have also been implemented and schemes on quality education are being implemented.

— Director, Ministry of Skills Development and Entrepreneurship

### Staff, resources and facilities required by Indian students

Academic and professional staff, alongside resources and facilities at Indian universities, are important factors in developing the employability of students and graduates. Similar to the staff, students and employers' opinions, policymakers also felt that there is more to be done to address these factors in Indian HE. Just 37% of policymakers agreed that Indian universities have the necessary resources and 30% agreed that Indian universities have the necessary academic and professional staff, with even fewer policymakers —10%—reporting that institutions are equipped with facilities, such as labs, pods and technology, required by students to progress into the workforce.



10% of policymakers felt that Indian universities are equipped with the necessary facilities required by students.

Policymakers felt that this was due to the fact that Indian universities may not have enough financial resources and highlighted the considerable level of bureaucracy involved when additional resources are requested at an institutional level. Alongside facilities and resources, policymakers have questioned the preparedness of academic staff. There is an opportunity for staff to change their mindset, particularly in relation to adoption of innovations in the classroom.

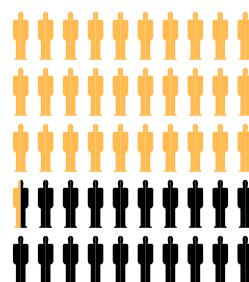
Teachers need to be trained and that's very true. We have had smart boards in our classrooms for a while but some teachers feel that conventional methods work well and they don't engage with innovations.

— Civil Servant, Department of Education, Chennai

## REQUIREMENTS OF SKILLS AND COMPETENCIES

### Indian HE graduates' skills and knowledge level

The level of preparedness of Indian graduates in terms of graduate skills and knowledge level was also explored through the perspective of policymakers. Graduate skills and knowledge that are sought after by the public sector were limited according to policymakers. Only 39% of policymakers felt that graduates from Indian universities have the necessary skills and knowledge they are looking for in the public sector.



61% of policymakers felt that graduates from Indian universities do not have the necessary skills and knowledge they are looking for in the public sector.

Functional skills were relatively easy to acquire according to policymakers, unlike specific soft skills deemed to be key to the public sector, such as attitude to training, customer interaction, communication and personality traits.

Most of the colleges in India, which are private, provide opportunities for students to develop soft skills that are sought after by the public sector, but government colleges and schools have not been able to provide such opportunities according to policymakers. Policymakers felt that there have been considerable efforts channelled at incorporating these soft skills, but these have been individual institutional efforts, as opposed to holistic, HE sector-level efforts.

Since students and graduates go through an outdated curriculum, the public sector employers do not find them job-ready, and then spend a lot of time and resources in retraining them by themselves.

— Principal Secretary, Department of Higher Education, Hyderabad

### Skills and competencies required in the public sector

The top 10 skills and competencies required in the public sector as seen through the perspective of policymakers were dominated by soft skills and personal traits and abilities, as opposed to technical and specialist skills.

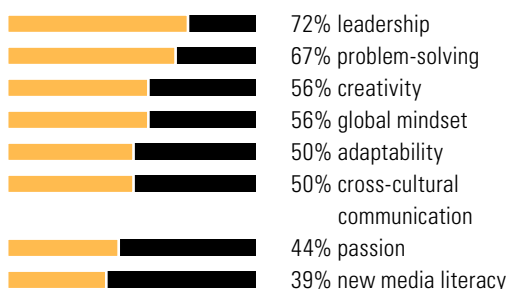




78% of policymakers rated critical thinking and teamwork as the top two skills and competencies that are urgently required in the public sector.

78% of policymakers rated critical thinking and teamwork as the top two skills and competencies that are urgently required in the public sector. The remaining top skills and competencies for policymakers included:

Key for % of policymakers:



Policymakers in relatively small governmental organisations emphasised the importance for graduates to be able to demonstrate multi-tasking skills with cross-functional capabilities and high adaptability, alongside other, predominantly soft skills.

The challenge is that there is disconnect between universities and industry. Major deficiency is soft skills, people management and the ability to communicate.

— Director, Confederation of Indian Industries

### Challenges to skills development in the public sector

Just as in the case of universities' employability efforts and training provided by industry, policymakers also saw a number of challenges with regards to skills development in the public sector. Policymakers felt that regulations, frameworks and guidelines for skills development are still evolving, which leads to uncertainty, posing a challenge to actual viability and implementation. Other challenges involved the availability of public sector skills trainers and

assessors, alongside resources, both financial and technical and infrastructure.

### THE STATE OF BRAIN DRAIN IN INDIA

#### Reversing the trend

The proportion of Indian talent that has joined the global workforce and contributed to organisations in world economies is soaring. With 16 million people living outside the country, India has the largest diaspora population in the world (Times of India 2016). Thousands of Indian students go overseas for study purposes and many of them decide to pursue a career post-graduation in their host country. Policymakers had the opportunity to provide their perspective on this trend and its direction and 59% of policymakers felt that there is a challenge in making sure India's skilled graduates stay in the country.



59% of policymakers felt that there is a challenge in making sure India's skilled graduates stay in the country.

Despite the significant flow of skilled graduates from India, policymakers suggested that there is a significant number of talented people willing to start new businesses and take up large roles in the Indian job market. Policymakers commented that the recent surge in inward investment, and the opening up of new sectors and markets in India, are encouraging signs that highly-skilled Indian graduates will decide to start their career journey in the country.

#### The challenges of making India's graduates stay in the country

Some policymakers felt that the trend of Indian students studying overseas is likely to reverse in the coming years and India may see more of its youth deciding to study in the country. While privatisation in the HE sector has become very much commercial in its objectives, policymakers suggested that the advantage has been that India is now moving to the next stage of competitiveness among HE institutions, which in turn will create more opportunities for quality education in India. India already has landmark institutions like the

IITs, IIMs, NLUs, which policymakers felt have raised the bar for other institutions.

Others, however, felt that the proportion of Indian students going abroad to pursue university-level education is expected to increase even further, which is partly due to the fact that the student body in India is increasing rapidly and admission to landmark HE institutions in India is becoming very competitive.

Universities are coming into India so the trend may change, though there will continue to be an interest in going overseas to get a global perspective which is useful for the global as well as Indian career.

— Advisor, Department of Education, MHRD

Some policymakers, however, stressed the importance of the opportunities of studying abroad and the influence of international experience and exposure on the employability of Indian students and graduates. Even if Indian universities improve to match the best in the world, there was no substitute for an international exposure.

## KEY POLICY PRIORITIES

### Productivity and capacity building through skills development

Policymakers emphasised that the current Government has launched a number of key initiatives to promote vocational training, which will enhance the present skills and pave the way for improved skills development provision. They felt that key sectors of the Indian economy should be given industry status, which will encourage employers to come forward and take ownership for skilling. With this in mind, the logistics and supply chain sector was just one example highlighted by policymakers.

Incentivising industry to train students should be put at the heart of the skills development agenda. Apprenticeships, as policymakers felt, were just one example to address current challenges surrounding the productivity and capacity building of the Indian workforce through skills development. Apprenticeships were thought to be crucial for developing skills for key sectors of the Indian economy, such as manufacturing, construction and trade.

Identification of skills gaps, horizon scanning of workforce trends in the Indian labour market, and the provision of industry input mechanisms were also

put forward by policymakers as key policy priorities to support skills development aspirations of the Government and to ensure that universities develop graduates that are fit for the workforce.

### Developing skilled professionals to train people

Another key policy priority, which was put forward by policymakers, was the development of skilled professionals to train people to join the Indian workforce through channelled investment and quality control of training and assessment. Within this context, key considerations policymakers felt should be taken forward included:

- Standardisation of academic inputs at all universities and colleges
- Provision of resources for developing trainers and assessors
- Development of industry exposure opportunities
- Faculty development programmes

## THE FUTURE OF INDIAN HE

### The evolving world of work

#### Idea one

Focus on entrepreneurship, innovation and quality research are important areas of work that have the potential to scale up and support the Government's efforts in skilling India and improving the productivity of its workforce. Alongside skills development, policymakers felt that research and innovation hold a prominent place in the HE sector and that more resources should be channelled at these two initiatives.

I hope universities will inspire youth to get into research too. Because by creating start-ups, for example, you are not just creating a job for yourself but you are facilitating more employment for the country.

— Director, National Skills Development Corporation

### Idea two

Introduction of employer-led short modules focused on skills development was another idea proposed by policymakers. With this in mind, universities and colleges have the potential to introduce a range of specialised short modules, which focus on developing skills in demand across key sectors of the Indian economy and supplement the mainstream curriculum. Policymakers suggested that employers have a key role to play in designing these short modules, training of faculty members, and having an oversight on the quality of training delivery, quality assessment and certification.

The Indian mindset is changing and there is already initiatives in place to skill students and provide hands-on industry exposure but mainstreaming might take another 10 years.

— Director, National Skills Development Corporation

internationally and the skills development agenda is gaining momentum, particularly through the work championed by the new Ministry of Skills Development and Entrepreneurship.

## Current international developments

### Idea three

The process of aligning India's education and skills development standards with international standards is an important consideration in going forward and will enable the Indian HE sector to become more competitive and develop graduates who are fit for both the Indian and international labour markets.

What we need to ensure at colleges and universities is that we not only prepare Indian students for the Indian job market, but also for the international one. Students have to be prepared for an international career. We have always been following the Indian model but not any international ones.

— Director, Confederation of Indian Industries

Policymakers suggested that the Indian HE sector and skills development framework are still lagging behind other skills systems such as the UK one. They nevertheless highlighted that India has been able to learn from good practice

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## Case study: Praveen Roy

Advisor for Skills, Confederation of Indian Industries  
Former CEO, Tourism and Hospitality Skills Council

### The role of Indian HE in skills development

We support skills training through our Sector Skills Councils but, unfortunately, desired training partners are not always available. If you want to become a global player, you would need to standardise certain skills and elements of your business so that they are acceptable internationally. Industry representatives should come forward and provide input into the setting up of industry labs or centres of excellence within universities. We would need to find a way to move higher education, specifically postgraduate education, from the campus into the industry. Professors and faculty should also have the opportunity to work within industry and alongside employers.

Then, when we talk about the ranking and reputation of Indian universities, placements have taken a key role in contributing to these determinants to the success of HE institutions, which was not there before. These placements need to be put into a comprehensive and forward-looking framework. At the end of the day, the purpose of going to university is to ensure that a person gets gainfully employed which is particularly important.

### State of graduate preparedness for the workforce

I would say Information Technologies (IT). IT is going to become a universal skill regardless of which sector graduates end up working in. Second I think is English language and communication skills at large. English language has to be accepted throughout the country and promoted among youth. We have many local languages in India, and even though many speak English, the competency level of spoken English is low.

Another important thing to consider is the adaptation of students and graduates to the international environment. This has to be embedded in our culture as we live in a global environment. Indians need to become more adaptive and I think this is something that we currently

lack to an extent, but adaptability to global contexts and environments is something which is going to be really critical in the future.

### Ideas for the future of Indian HE

One of the most important and perhaps critical issues is that we would need to find more effective ways to involve industry in the design, development and delivery of HE and education at large. Secondly, India's approach to education is still very prescriptive. We have too many state boards and centreboards, which introduces a considerable degree of complexity to the process of implementing innovation in education.

Final examinations such as the class 12th national level examination should be replaced with examinations in continuous fashion. My recommendation follows from the fact that we are creating too many people who are taking similar streams and hence target to do similar jobs. The current approach to education in India is very prescriptive, yet it decides the fate of our children and youth.

I think the third critical thing that needs to happen in Indian HE is the adoption and standardisation of methodologies and approaches used by successful international education systems and practices. Fewer Indian students, less than 2%, study abroad and have the opportunity to develop skills and their employability potential, but we need to look at the remaining 98% of students here in India. So I think we need to get this out of our mindset that the Indian HE system is excellent. Instead, we should adopt best practices from international contexts and adapt them as quickly as possible.

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## Third sector perspectives: Social enterprises



Third sector organisations in India, commonly known as Non-Governmental Organisations (NGOs), are influential advocates of education and play an important role in skills development in the country. India has 31 lakh NGOs, more than double the current number of Indian schools (Indian Express 2015). Many NGOs in the country have their primary focus on education and skills development. Prominent ones are Teach India, the British Council and You and I.

This section of the report draws on the perspectives of over 60 NGOs in India into the state of Indian HE and the skills development agenda, NGO requirements of skills and competencies, the societal and community angle of workforce productivity and capacity building, and the state of brain drain of Indian talent through the perspective of NGOs. The section concludes with a section where NGO representatives reflect on key ideas for the future of Indian HE.

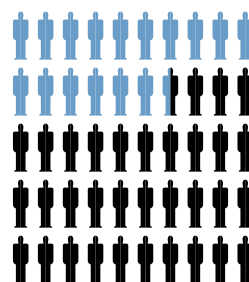
## SKILLS DEVELOPMENT AND INDIAN HE

### Preparing students for global careers

Globalisation requires students to be prepared for global careers and this is particularly relevant in the case of India, where a large number of graduates are expected to join the global workforce and fill in skills gaps in countries experiencing talent shortages. NGOs have a role to play in inculcating a global mindset and awareness in students. Over 50% of the Indian NGOs, which took part in this study are directly involved in education provision and skills development, which often cater for youth from disadvantaged backgrounds.

NGOs, unlike employers and policymakers, generally paint a more positive picture on the preparedness of Indian students and graduates for the world of work. Despite that, only 67% of NGOs highlighted the potential and capacity of Indian HE to prepare students for the global workplace in terms of understanding international developments and standards.

NGO representatives felt that having a global outlook and being able to respond to issues of diversity are important graduate outcomes, which have not been taken forward by Indian HE institutions, nor they have been built into the curriculum. One of the key problems they identified was the lack of opportunities for Indian students for exposure to diversity both in the Indian context and internationally.



33% of NGO representatives felt that Indian HE fails to prepare students for the global workplace through understanding of international development and standards.

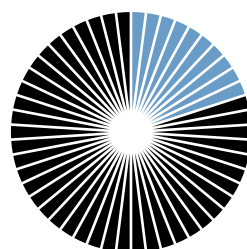
Representatives from NGOs felt that HE institutions themselves should concentrate considerable efforts to internationalise and innovate their curriculum as the basis for preparing students and graduates for global careers:

One size fits all approach doesn't work in Indian universities. Private institutions can offer more quality and international exposure when compared to public ones. Government institutions don't have the capacity, the freedom to do this and renew their curriculum.

— Head of Internationalising HE, British Council

### Preparing students for the rapidly shifting world of work

NGO representatives highlighted a number of prominent challenges related to preparing Indian students for the world of work. The lack of experiential learning opportunities and limited access to project-based education were flagged up as two considerable challenges in Indian HE. NGOs highlighted a number of institutional initiatives of good practice, which has the potential to be mainstreamed across the wider HE sector in India. Some of these examples of good practice included student-led projects with community organisations and the involvement of industry representatives in skills development initiatives.



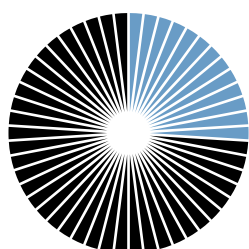
20% of NGO representatives felt that Indian HE fails to prepare students for the rapidly changing workforce and workplace.

Nevertheless, 8% of NGOs felt that Indian HE prepares students for the rapidly-changing workplace and workforce requirements, particularly in the case of universities located in large urban centres, such as Delhi and Mumbai. Rural and publicly funded universities were thought to be facing far more challenges in equipping their students for the workforce. These challenges are often related to the capacity and quality of HE provision outside large urban centres in India and the negative effect on the employability of students graduating from these institutions.

The potential is there but there is a problem with skills development as the current supply of higher education is unable to meet the demand from youth across the country. There is a shortage of quality and scale.  
— Director, E and H Foundation

**Staff, resources and facilities required by Indian students**

NGOs also had the opportunity to reflect on the state of the provision of key resources and facilities to aid students with developing their employability. Unlike the more critical perspectives provided by academics, employers and policymakers, NGOs were more likely to agree that Indian universities are equipped with the necessary staff, resources and facilities required by students. Despite 75% of NGOs highlighting that Indian universities are equipped with the necessary academic and administrative staff, some highlighted that lecturers in many lower-tier Indian universities are not adequately trained, nor they are equipped with core academic skills, such as literacy and numeracy. 26% of NGO respondents suggested that institutions are not equipped with the necessary facilities students require to progress into the workforce.



26% of NGO representatives felt that Indian universities are not equipped with the necessary facilities students require to progress into the workforce.

NGOs identified that government resources for HE are not often utilised in a strategic way and tend to be concentrated in a few institutions. The reason for unequal distribution of resources and inconsistency

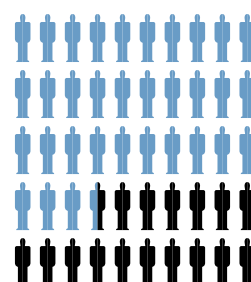
in the quality of education might be the result of key country-level trends and challenges such as the ‘massification’ of Indian HE, as NGOs highlighted, coupled with the growing demand for education from India’s fast-growing middle classes, which are expected to increase to 500 million people in the next decade (British Council 2014).

The main challenge for Indian HE is quality because massification is happening at a rapid pace. The Gross Enrolment Ratio at Indian universities is only around 27%.  
— Head of Internationalising HE, British Council

**REQUIREMENTS OF SKILLS AND COMPETENCIES**

**Indian HE graduates’ skills and knowledge level**

Specific skills needs for organisations representing the third sector in India is also an important consideration, particularly for NGOs involved in education and training as their network of volunteers serves as educators, whose knowledge and attributes is transferred on to students. 67% of the surveyed NGO representatives felt that Indian graduates have the necessary skills and knowledge they are looking for, but pointed to the range of predominantly soft skills that graduate recruits in NGOs often fail to demonstrate. Within this context, some NGO representatives felt that students lack communication skills on both a personal and professional level thus leading to an inability for graduate recruits to work as part of a team, which is an essential requirement for this type of organisation.



67% of NGO representatives felt that Indian graduates have the necessary skills and knowledge they are looking for.

Leadership skills were also highlighted as key for NGOs, particularly for those organisations with a larger volunteer base. Leadership was nevertheless less demonstrable in Indian graduates regardless of which NGO jobs they went for, with NGO representatives highlighting that the ability to manage people and people skills are not present in Indian graduates.

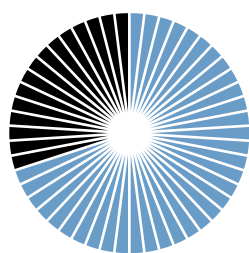
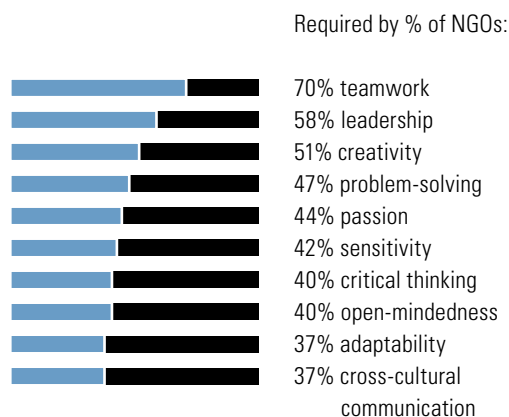
According to NGOs, students and graduates from Indian HE know how to work on their own, but they often lack the skills to work with others.

The organisation I work for have a problem with finding leaders. Interpersonal skills are something that you do need when you have to deal with a large number of people but if one is treated as an independent student, it is hard to develop them.  
— Lead Educator, U and I

### Skills and competencies required in NGOs

Alongside the ability of Indian graduates to demonstrate adequate levels of knowledge and skills for the sector lay an array of specific skills, attributes and competencies that are required by NGOs, making graduates who possess these skills more employable in NGOs.

Teamwork was described by 70% of respondents as the single, most important skill required in the not-for-profit sector in India. Other top skills were dominated by soft skills:



70% of NGO representatives named teamwork as the single most important skill required in the not-for-profit sector.

### Challenges to skills development in NGOs

To support skills development, NGOs felt that accessibility and awareness of training and education opportunities needs to be encouraged, alongside capacity building for trainers in NGOs.

Accessibility to and affordability of education and training from underprivileged communities in India was seen as one of the main challenges. NGO representatives suggested that there should be more awareness of the benefits of undergoing training and education courses through NGOs, particularly amongst underprivileged communities, which should be supplemented by effective planning and support from the Government and media partners. NGO representatives felt that the ability of new recruits to absorb and apply new knowledge and innovative pedagogic approaches was seen as a major challenge.

We can provide the training but having the skills to pick it up, understand it, comprehend it and apply it is not there. There is a lot of micro-managing that we end up having to do as recruits do not absorb skills fast enough so that they can apply them in NGOs.  
— Lead Educator, U and I

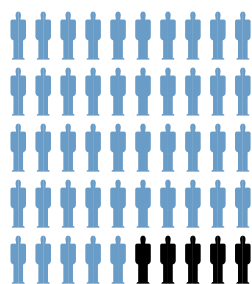
Others suggested that building on the recent success of the NSDC, the challenge remains to establish niche skills companies that can channel their efforts at developing capacity and capabilities for the Indian workforce engaged with NGOs.

### THE STATE OF BRAIN DRAIN IN INDIA

#### The challenges of making India's graduates stay in the country

The challenges of making India's graduates stay in the country are often linked to the absence of an enabling environment and adequate incentivisation (Purkayastha 2017). These challenges are seen through the perspective of NGO representatives who, similar to policymakers, felt that India as a whole and the NGO sector in particular suffered by brain drain in different ways.





90% of NGO representatives felt that there is a challenge in making sure India's skilled graduates stay in the country.

90% of NGO representatives felt that there is a challenge in making sure India's skilled graduates stay in the country. For policymakers, the figure was 41%, which suggests a gap between perceptions of both cohorts and that NGOs have a more critical perspective to the current state of retaining Indian graduate talent in the country.

Yes, there is a challenge. Providing a stimulating environment where you not just use your skills but you also develop new skills is important. So the challenge for a lot of employers is to develop their employees. Sadly, the best minds are attracted by the best companies, which are in the Silicon Valley, not in India.  
— Project Liaison, Rural Women NGO

Not only was brain drain recognised as a specific problem for India at large, but also for NGOs themselves, which suffered the departure of talented volunteers, educators and trainers at NGOs. Representatives from these organisations pointed to the challenge of continuity, whereby Indian graduates commence work for NGOs immediately after graduation for a short period of time and then take on opportunities to study abroad.

NGO representatives also had the opportunity to provide their views on how challenges related to brain drain are likely to impact the societal agenda and society at large. They felt that brain drain has not affected the social agenda to a significant extent, as Indians abroad only have a moderate influence on the social agenda in India mainly through their involvement in NGOs and contribution through remittances.

Many of these people were born in families that are educated. They understood the importance of education and higher education. So people who went abroad are the elite of India. They don't play much of a role in defining the social agenda; they do, however, contribute through remittances.  
— Project Liaison, Rural Women NGO

### Reversing the trend

Thousands of Indian students go abroad to study for undergraduate and postgraduate HE degrees, whereby main destinations for Indian students have been the UK, Australia, Canada and USA. NGO representatives reflected on whether this trend is likely to change in the coming years and whether India would perhaps see more of its graduates choose to study in the country.

They provided contrasting perspectives on the future of brain drain in India and felt that challenges related to this trend can be offset by innovation in the HE sector in India linked to the provision of a better learning environment, a challenging curriculum and graduate employment opportunities.

I do not see any change in the coming future unless there is paradigm shift in education policy in accordance with the demand of modern times with a focus on knowledge production and value addition.

— Chairman, Arts and Culture NGO

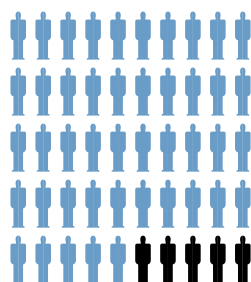
Others suggested that the current trend whereby Indian students go abroad to study is slowing down, despite the significant number of students who embark on opportunities to study abroad, particularly at a postgraduate level. NGO representatives suggested that postgraduate education opportunities in India are limited, but the fast-growing Indian economy and rising standard of living might serve as pull factors for Indian talent to join the Indian workforce.

### KEY POLICY PRIORITIES

#### Skilled professionals to train people required in NGOs

NGOs had the opportunity to define key policy priorities, which they felt would support their agenda going forward. Scaling up resources for capacity building of the NGO workforce and network of volunteers was seen as a key policy priority going forward. Yet, 29% of the surveyed NGO representatives felt that there are not the necessary professionals, who will be able to train the number of skilled people required for professions and projects in the NGO sector.

The shortage of skilled trainers was particularly evident in rural India, where the need for adequate training was seen as even higher due to poorer education and training standards in these rural communities when compared to NGO professionals based in cities.



71% of NGO representatives suggested that they have access to the necessary professionals, who will be able to train the number of people needed in NGOs.

NGOs based in cities, on the other hand, highlighted that they boast a good number of professionals who can support them in their training and development projects due to their proximity and reach to technical institutes.

Improving the effectiveness of training and capacity building of the Indian workforce, whilst promoting the optimisation of investment in training, was seen as another key policy priority by NGO representatives. Larger NGOs specialising in education and training, such as Teach for India provide in-house training to their employees and volunteers, but they saw a potential in reducing the amount of time required for training, which currently stands at six weeks.

#### Role of productivity and capacity building through skills development in society

Skills development benefits the economic productivity of Indian companies and the economy. Nevertheless, the wider role of workforce productivity and capacity building through skills development should not be underestimated, particularly in the societal agenda. NGO representatives had the opportunity to reflect on how skills development initiatives benefit societies and communities at large.

NGO representatives suggested that skills development has the potential to boost the employability of Indian graduates and create more job opportunities, but a fundamental reconsideration of the way skills development interventions are carried out may be required going forward.

The market is still very immature to realise that capacity and competency building exercise have to start at the ground level. We may produce a million more engineers, by opening another thousand degree mills, but the problem is with ensuring that they are employable and their skills benefit societies.

— Director, Entrepreneurship and Skills Development NGO

In line with this, other NGO representatives suggested that, in addition to students and the graduate workforce, improving productivity and increasing the capacity of the wider workforce pool should also be placed high on the agenda. This move was seen as something that would also benefit societies and communities at large, particularly in areas with lower concentrations of HE institutions and graduates.

## THE FUTURE OF INDIAN HE

### Current international developments

#### Idea one

International collaboration should be put at the heart of the HE agenda in India going forward as it has the potential to bring about a number of benefits and address challenges of outdated curriculum, skills development and improving the quality and scale of the sector. NGOs felt that internationalisation of the Indian HE sector should be encouraged at not only institutional but also national and state levels. There is a growing recognition of the importance of a greater openness of Indian universities to international HE providers, who can bring about good practice in higher education and skills development.

The opportunity is [there] for international providers, a lot more than the domestic ones, to come to the Indian market, install creative ideas to disrupt the local skills space and then show the local institutions effective alternatives.

— Director, Entrepreneurship and Skills Development NGO

In the context of international collaboration for skills development, NGO representatives also called for the establishment of project-based partnerships with foreign institutions, particularly from the UK and Australia.

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## The evolving world of work

### Idea two

NGO representatives suggested that providing access to education and skills development opportunities to the masses is what Indian HE should focus on going forward. This will involve the establishment of sustainable multilateral partnerships involving Government, employers, academia and NGOs to drive this agenda forward.

NGOs, whilst having few that might be influential because they have supporters who are influential, these organisations can't teach on their own. They need to bring everybody on the table—whether that's the private sector, government or universities.

— Lead Educator, Teach for India

Scaling up of HE provision to enable access to higher education, particularly to students who cannot afford it, was seen as key for NGO representatives. However, the Indian HE sector may lack motivated and skilled lecturers to support students in their learning and employability efforts.

In light of this, NGOs suggested that universities should provide a level playing field for students who have come from rural areas and those from cities by creating opportunities that enable inter-learning.

### Idea three

NGOs felt that there are some fundamental challenges that the sector needs to focus on in line with taking actions to ensure that Indian HE is fit for the rapidly evolving world of work. Ensuring equality through education provision and skills development opportunities was seen as an important consideration.

The inclusion of rural communities in education provision and skills development coupled with more diversity in the recruitment of students and academic staff has the potential to improve employability prospects for a wider cohort.

India's higher education system, originally designed to serve the elite, will now have to serve the people.

— CEO, Skills Development NGO

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## Case study: Eldho Mathews

### Head of Internationalising Higher Education (South India)

#### British Council India

#### The role of Indian HE in skills development

Higher education is valuable for both individuals and society. For the State, economic and social development are top priorities. The Indian higher education sector is not an exception and finding the right balance is extremely important here.

Currently more than half of India's 1.25 billion people are under the age of 35, and it is estimated that by 2020, India will be the youngest country in the world, with a median age of 29. This demographic dividend provides an excellent opportunity for Indian higher education institutions to make the country the talent powerhouse of the world. Various government policy pronouncements address this reality. However, it is a fact that the majority of Indian institutions are affected by 'ad hocism' in their attitude towards effecting structural and policy changes at the institutional level. One size fits all approach does not work in the Indian HE context.

Only the creamy layer among the public and private higher education providers respond to changes happening at the international level. Both public and private providers in India have relative strengths and weaknesses. Good private institutions are more responsive to market demands—both at the national and global level. They enjoy greater academic and administrative autonomy than their public counterparts do. Most of the prominent private institutions are good at building and maintaining international and industrial partnerships, providing job placements, offering relevant curriculum, etc. However, despite the growth in private higher educational institutions, people still prefer good public institutions to private ones. Apart from affordability, the reputation, quality faculty and democratic space in public institutions give these institutions strategic advantage over private ones.

#### The state of brain drain in India

If the Indian economy grows at a rapid pace and the employers can offer decent salary matching to the current rate of inflation, India's skilled graduates would prefer to stay in the country or come back if they are overseas. A good example is Bangalore, the 'Silicon Valley of India'. Few studies have shown that many Indians who migrated to the US in the 90s have come back. Now many Indian and foreign companies offer attractive pay packages in the IT sector in order to retain highly skilled talent in the country. Equally, Brexit and the recent changes in the US after Trump coming into power are events that are definitely going to impact the decision making among skilled Indian graduates.

#### Ideas for the future of Indian HE

Firstly, it is very important to know what is happening globally. Therefore, partnerships—both institutional and individual—are extremely important. Policymakers should have a clear idea about what is happening outside the country.

Secondly, curriculum should be revised on a regular basis and a skills framework should be incorporated. Students and other stakeholders should have a say in this process. We cannot turn a blind eye to the fact that with the advent of new technologies, often students have access to the latest trends in subject areas, which may not always be the case with their teachers.

Thirdly, continuous professional development of teachers and ensuring democratic practices in all institutions are important changes that should happen in Indian HE. It is not just about updating skills but also about ensuring that teachers are able to communicate with the new generation of students through various democratic modes of participation.

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## Insights for policy and practice



Based on the findings presented above, this section offers some initial insights and actions relevant for a variety of organisations and individuals with an interest in Indian HE skills development and graduate employability initiatives.

### Academic staff and HE leadership

Key findings from academic staff and HE leaders pointed to the current gap between the university curriculum and developments in the world of work. Academic staff also highlighted the value of internationalisation in Indian HE emphasising the opportunity to establish international collaborations and partnerships.

This report puts forward specific insights and calls to action made by academic staff and HE leaders:

- Embed internationalisation and cross-disciplinarity in the curriculum and in pedagogic practice as the basis of preparing future-ready, globally-aware Indian graduates.
- Provide opportunities for students to develop a healthy mix of subject-specific skills and soft skills and attributes through project-based and flipped classroom approaches.
- Embed employability development modules and pedagogic tools to assist students with the development of employability skills and attributes.
- Intensify the employer engagement agenda with the view to providing students with opportunities for developing industry-informed skills, industry exposure, placements and employment.
- Establish an enabling environment for industry and employers to engage with your institution and provide industry-informed input into curriculum and pedagogies through the establishment of Employer Boards and the appointment of Professors of Practice.
- Work towards establishing international research and student mobility partnerships with HE institutions overseas that will enable the internationalisation of the staff and student body at your institution.

### Students

Key findings from students highlighted the lack of exposure to a practice-based curriculum and pedagogy. Students also emphasised the role their University can play in preparing them to navigate an ever-changing world of work but highlighted that access to employability and careers services at their institutions can be difficult. As key takeaways for Indian students, the report highlights the need to:

- Seek extra-curricular opportunities through your institution or through NGOs in India involved in skills development to gain extra-curricular experience and develop skills and attributes to make you more employable.
- Embrace curricular, co-curricular and extracurricular opportunities involving collaborative projects that will assist with developing teamwork and people skills, which are in high demand in the current graduate job marketplace.
- Enrol on subject-specific MOOC courses that will broaden knowledge and help you see your course through an international and cross-disciplinary perspective.
- Enrol on skills development MOOC courses to develop new skills and competences as well as through communications with other students on the course.
- Create a digital professional identity on professional media platforms, such as LinkedIn that will make you stand out from the crowd and give you the opportunity to access training and employment opportunities.

### Employers

Key findings from employers and industry representatives highlighted the lack of preparedness of Indian graduates for the world of work. Employers also highlighted the nature of Indian HE's relationship with industry, which was perhaps harshly as accused of being closed and isolated despite the willingness of employers to partner with academic institutions.

This report puts forward specific insights and actions aimed at employers as a response to these and other key findings from this cohort:

- Explore university-industry partnership opportunities with universities and colleges with the view to provide training and skills development opportunities to students and graduates.
- Establish your employer presence at universities and colleges through recruitment events and job fairs with the view to promote your organisation's vision, mission and values to students and graduates on campus and spot talent for your organisation.
- Seek incentivisation from the Government to engage with HE institutions in skills development initiatives through relevant government-led frameworks in place, such as Sector Skills Councils and India's International Skill Centres.
- Explore potential partnerships with HE institutions to support skills development and the training of students and graduates through mentoring, voluntary placements or internships.
- Seek opportunities to provide input into the university curriculum that will ensure that HE courses deliver industry-relevant knowledge and skills.
- Seek additional skills development resources and opportunities at national and state events led by the Confederation of Indian Industries and Federation of Indian Chambers of Commerce in India.
- Explore and invest in the development of inward and outward staff mobility programmes that will enable Indian academics to gain an international perspective in their subject discipline and develop a network of international collaborators and partners.
- Explore and invest in the development of inward and outward student mobility programmes that will enable Indian students to develop a global mindset and enhance their employability through global experience and exposure.
- Incentivise university-industry partnership and collaborations with a focus on the design, development and delivery of courses and modules on entrepreneurship and innovation.
- Incentivise university-industry partnership and collaborations with a focus on the development of graduate-level career and placement opportunities across subject disciplines of national importance.
- Embrace big data through professional media platforms, such as LinkedIn India as a source of identifying workforce trends and skills in demand that will enable the better alignment of HE provision with the requirements of Indian employers and key industries.

### Policymakers

Policymakers highlighted the need for universities and colleges to internationalise and innovate their curriculum as the basis for preparing Indian students and graduates for global careers. They also pointed to the need to embed attributes, such as entrepreneurship and innovation.

For policymakers this report highlights the need to:

- Create an enabling environment to nurture partnerships between Indian HE institutions and universities internationally with the view to internationalise the curriculum in line with international developments across subject disciplines identified as a priority for India going forward.
- Explore partnership opportunities with industry and employers to provide support to disadvantaged youth and students with the development of their employability potential, and support skilling and re-skilling.
- Explore partnership opportunities with large-scale NGOs internationally to support your vision and mission and scale up your operations and impact in on the skills development agenda in India.

### NGOs

Key findings from NGOs emphasised the important role of these organisations in the provision of education and skills development opportunities but also the lack of a skilled NGO workforce. They also emphasised the importance of developing and driving a widening participation agenda that will enable India's tertiary age population to have access to higher-level skills development opportunities.

Key recommendations include:

- Make use of government and industry data on workforce and workplace trends to make informed decisions with regards to refining your organisation's curriculum and pedagogic practices, models and frameworks.
- Utilise professional development and academic practice MOOC courses with a view to up-skill and re-skill your network of trainers and introduce them into teaching and learning in a global context.
- Utilise subject-specific and skills development MOOC courses as a source of providing an international and employability perspectives into your organisation's teaching and learning models.
- Explore crowdfunding opportunities and develop crowdfunding projects to scale up the reach and impact of initiatives in education and skills development through your organisation.



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# Conclusion



The purpose of this report was to explore the current higher and graduate-level skills landscape in India from the perspective of a wide range of stakeholders.

Through detailed interviews and surveys, we have garnered the views of 270 HE leaders, educators, students, employers, policymakers, and NGOs on the challenges and opportunities for HE in addressing the talent mismatch and graduate-level skills development challenge facing India.

Respondents identified a number of challenges for HE, notably:

- The curriculum was often too theory-based, and lacked opportunities for practical application of knowledge in the real-world.
- There was a lack of an enabling environment where entrepreneurship, innovation and world-leading research culture can thrive.
- Internationalisation, a critical enabler of employable graduates, was not embedded into the heart of the institutional vision, mission and purpose.
- The lack of an employer engagement framework for collaboration and input into the design, development and delivery of HE.

Overall, there was a consensus amongst respondents that there is much more to be done within HE to tackle the graduate talent gap and to ensure Indian graduates have the opportunity to develop industry-relevant and graduate-level skills. Generally, respondents advocated the expansion of the higher-level skills development agenda through proactive investment and collaboration but also the quality and relevance of this skills provision within HE through the setting of international and professional standards that respond to the rapidly changing world of work and incorporate key international developments.

The report concluded by summarising some key actions, specific to each stakeholder group, that could inform enhanced skills provision in the HE sector which included establishing an enabling environment to nurture the development of partnerships between HE and employers—both within India and overseas—in order to internationalise the curriculum and embed practice-based education.

To date, the skills development agenda in India has been largely directed at the development and delivery of foundational life skills. Some recent developments and initiatives led by MSDE, however, point to a shift whereby higher-level skills are gaining recognition as they often contribute to a higher economic productivity and well-being, promote innovation and develop the capacity for the Indian workforce to address the country's social, economic and environmental challenges and opportunities. This preliminary study has therefore attempted to further our understanding of this topic by giving a voice to five different stakeholder groups—all whom have a stake in the future of higher-level skills development in India.

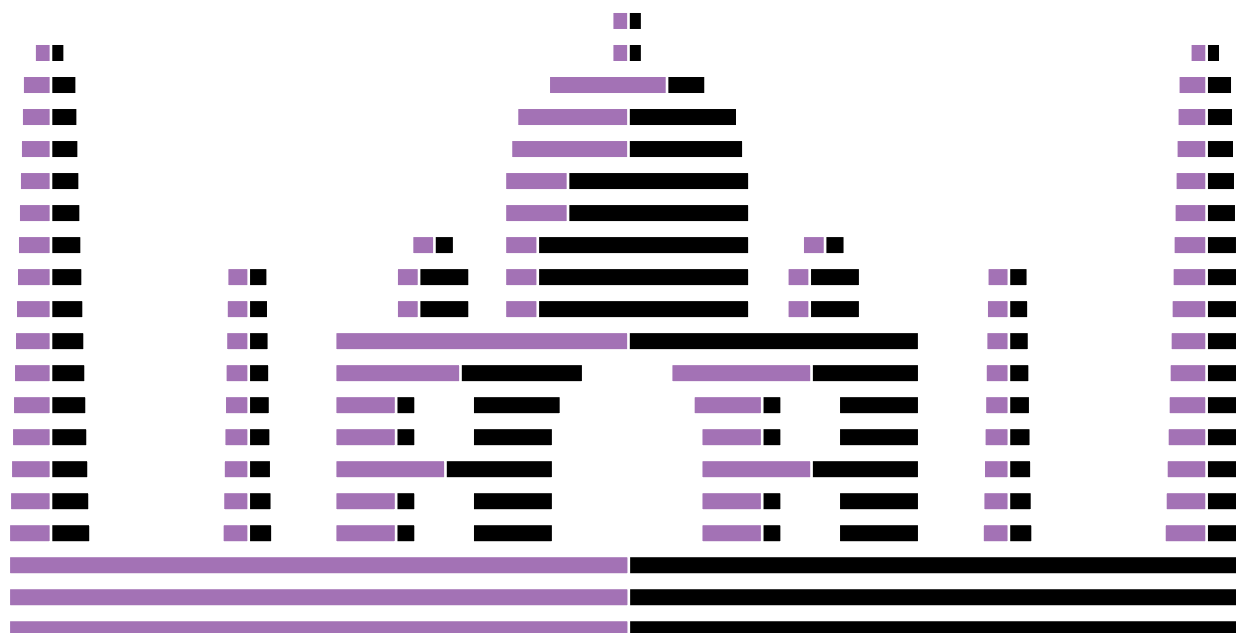
Clearly, further work in this area is needed to enable universities, government, industry and other stakeholder groups to meet the demands of a growing global economy and a favourable Indian demographic. It is acknowledged that whilst the present report represents a modest contribution, our intention is to continue this research on an annual longitudinal basis to deepen our understanding of this important global challenge in the Indian context.

This report and its findings therefore aim to provide a preliminary framework, which will be built upon over the years. For now, it opens up a dialogue on the importance of the design, development and delivery of higher-level skills development interventions in India and further afield.

Through future research, we will build on the initial insights in this report to develop a fuller understanding of how key stakeholders, both in India and here in the UK, can work together to bridge the education to employment gap through a focus on higher-level skills development.

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## Appendix one: Detailed methodology and sample characteristics



## PROFILE OF ORGANISATIONS PARTICIPATING IN THE STUDY

### Higher education leaders and academic staff

Representatives from the University of Madras, Symbiosis International University, IITs and IIMs, as well as representatives from technical, liberal arts and engineering colleges affiliated to over 15 universities across India.

### Participating students in HE institutions

Representatives from the University of Pune, University of Delhi, Symbiosis International University, University of Madras, IITs, IIMs, in addition to technical, engineering, social sciences and liberal arts colleges.

### Employers

Senior representatives from large international organisations, such as Ali Baba India, Google India, Accor Hotels, CNN, Hindu and a range of small and medium-sized businesses established in India across key sectors of the economy.

### Policymakers

Representatives from the Department of Education in Delhi and Madras, the National Skills Development Corporation (NSDC), Ministry of Skills Development and Entrepreneurship (MSDE), Sector Skills Councils, the Ministry of Human Resources Development and other government organisations.

### Third sector organisations

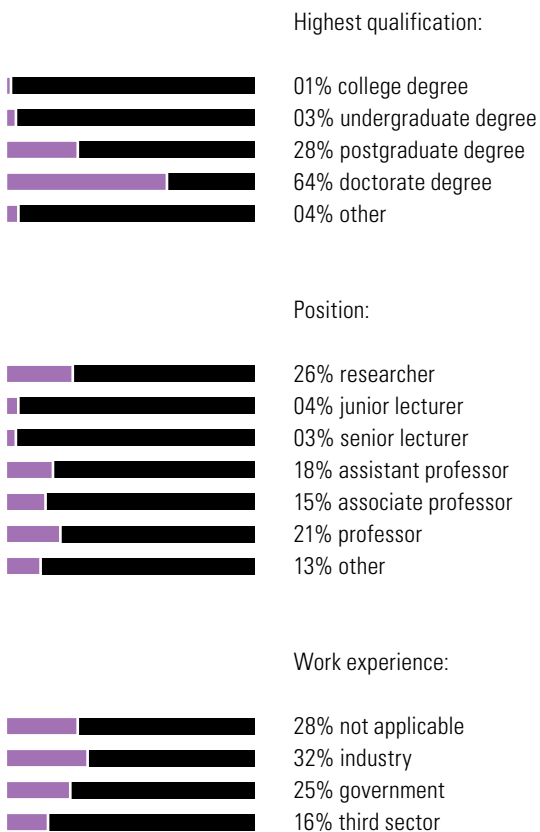
Representatives of NGOs involved in education and skills development, social entrepreneurship, gender and minority empowerment, arts and culture whereby prominent organisations included British Council India, Teach for India, U&I and E&H Foundation.

- Employers e.g. employers from key sectors of the Indian economy.
- Third sector organisations e.g. NGOs and community organisations.

Building on the semi-structured interviews, 235 survey questionnaires were distributed online and completed by representatives from each of the five stakeholder groups.

## HIGHER EDUCATION: SENIOR LEADERSHIP AND ACADEMIC STAFF

69 responses:



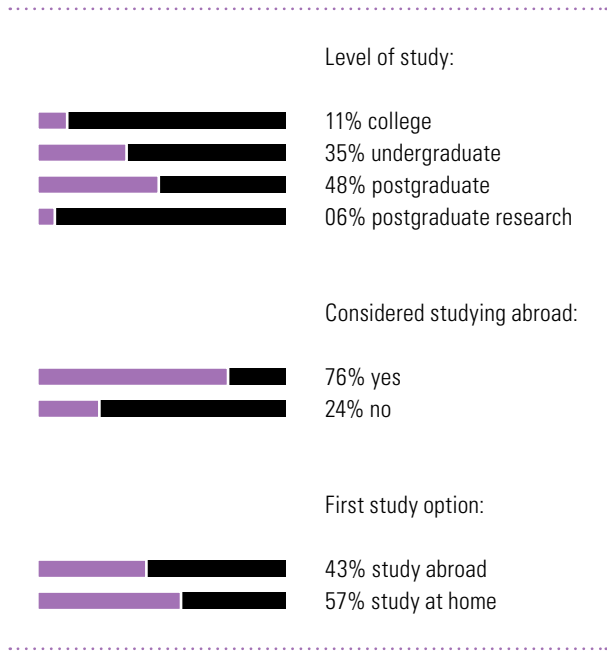
## RESEARCH TOOLS, STUDY SAMPLE AND PROFILE

A total of 35 semi-structured Interviews with representatives from the following stakeholder groups have been conducted—featuring at least five interviews for each stakeholder group:

- Higher education e.g. senior leadership and student representatives.
- Policymakers e.g. representatives of various governmental bodies.

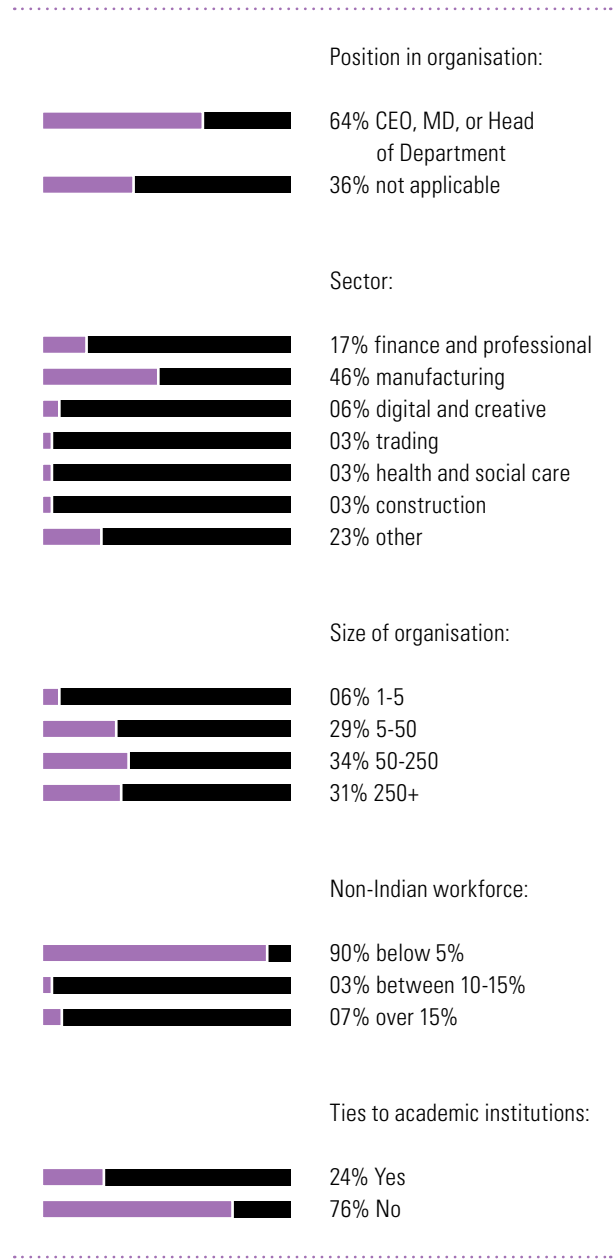
**HIGHER EDUCATION: STUDENTS**

54 responses:



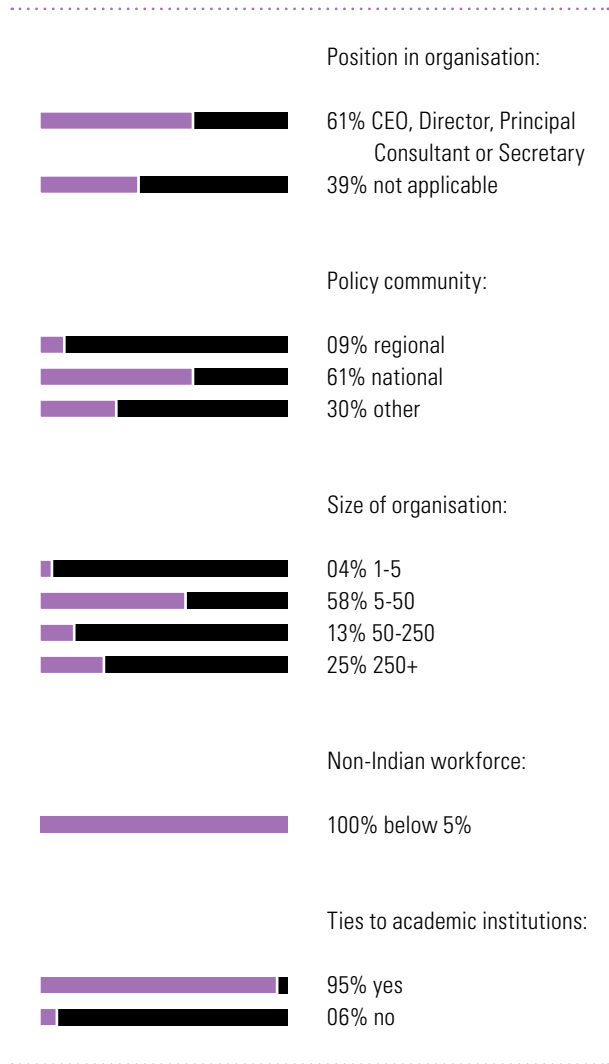
**EMPLOYERS**

35 responses:



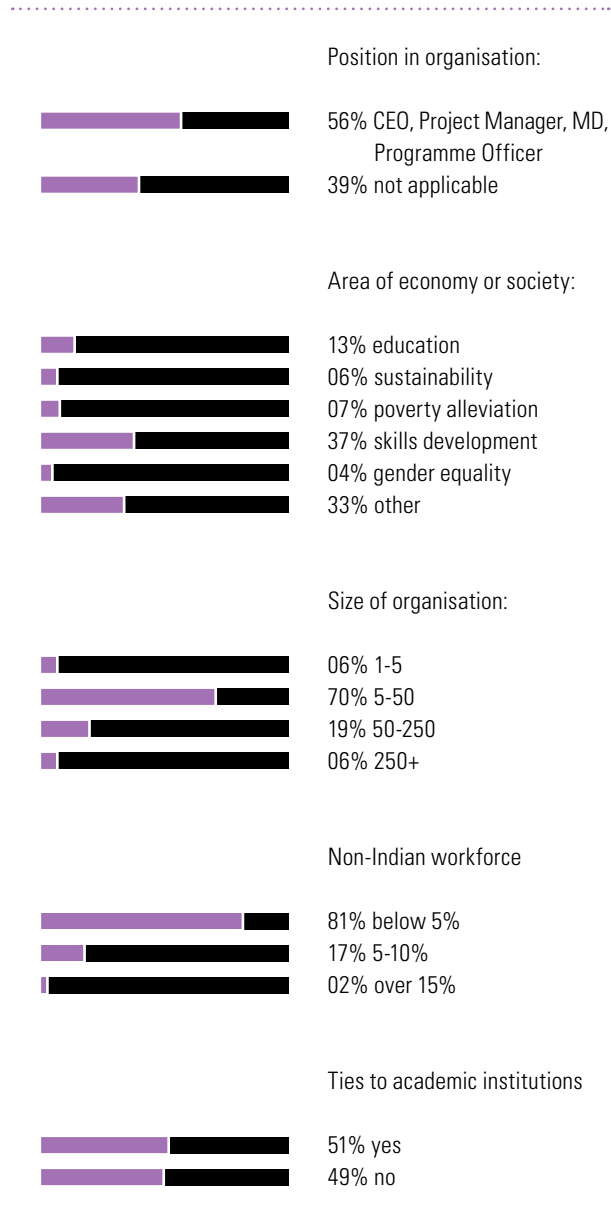
**POLICYMAKERS**

24 responses:



**THIRD SECTOR ORGANISATIONS**

54 responses:



## **GLOBAL TALENT ROUNDTABLE AND FOCUS GROUP WITH STUDENTS**

### **Global talent roundtable**

- A Global Talent Roundtable was held in New Delhi in April 2017 as part of Bournemouth University's Global Festival of Learning in India.
- Attended by representatives from HE, local authorities, businesses and third sector organisations, the Global Talent Roundtable initiated a dialogue on the concept of and application of global talent in the context of India, challenges and opportunities to skills development in the country as well as key ideas for the future of Indian HE.

### **Global talent focus group**

- A Global Talent Focus Group with Indian students was held in Pune in April 2017 to gather their views on the role of HE in skills development, the student perspective on key challenges and opportunities for skills development through HE and provide some key ideas for the future of HE.

## **GEOGRAPHIC SPREAD OF PARTICIPANTS**

The interviews and survey questionnaires received responses from over 10 Indian cities, amongst which were Ahmedabad, Chennai, Hyderabad, Jaipur, Kolkata, Mumbai, New Delhi, and Pune.

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## Appendix two: Data sources

AIU, 2017. Internationalisation of Higher Education in India - Annual Survey of International Students in India 2014-15. [online]. Available at: [http://www.aiu.ac.in/International/AIU\\_International\\_Students\\_2017%20\(2\).pdf](http://www.aiu.ac.in/International/AIU_International_Students_2017%20(2).pdf) [Accessed 21 August 2017].

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