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Open, Dynamic and Inclusive Labor Markets

Harnessing the Potential of Technological Change and Creating a Global Level Playing Field

B20 TASKFORCE

EMPLOYMENT AND EDUCATION

POLICY PAPER 2017

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Foreword by the Chair Gerhard F. Braun

The Creation of Open, Dynamic and Inclusive Labor Markets Provides Access to Employment to Everyone

While globalization, interconnectedness, technological progress, and innovation created great opportunities, challenges such as high unemployment, informality, poverty, and human rights infringements remain. Strong international collaboration is needed to enable everyone to benefit from the changing world of work. The G20 plays a key role in providing broader access to labor markets, aligning education with labor market needs, and creating a global level playing field while implementing and enforcing commitments regarding human rights and international labor standards.

Today's world of work faces demographic changes, technological innovation, globalization, and high mobility. Unemployment remains a global challenge: In 2015, 197.1 million people were unemployed and especially youth are facing difficulties in finding employment. Yet businesses find it difficult to fill positions. This skills gap crisis can by addressed through education programs aligned with labor market needs, such as work based training and vocational education.

To create an open, dynamic and inclusive labor market, migration policies should be aligned with labor market needs in order to enable the voluntary movement of workers and eliminate structural and legal barriers. Also, mobility between employment and within one's career should be increased, encouraging the growth of diverse forms of work. This can also support youth and women to access the labor market while at the same time discourage informality.

Finally, globalization and international trade have created wealth and jobs and opened new markets. While it is the duty of states to implement and enforce national laws regarding labor standards and creating safe and healthy work environments, business has to respect these laws and human rights. Consistently enforced national laws respected by all parties ensure that all workers in producing countries are facing the same conditions, regardless if they are part of a global supply chain or not.

The G20 has in the past made many commitments regarding the aforementioned topics. We now ask the G20 Governments for action in promoting open, dynamic and inclusive labor markets, in harnessing the potential of technological change through education, and in creating a global level playing field. Strong international cooperation will allow finding solutions to current issues and improving the situation of many workers all over the world.

Sincerely,

Dr. Gerhard F. Braun

Vice-President of the Confederation of German Employers (BDA)

Executive Summary

In recent years, employment and education have become core topics of the G20. Its leaders recognize the need to address unemployment, raise labor force participation, improve education and workforce qualification, and create framework conditions for quality jobs to ensure sustainable economic and financial development. The B20 is addressing these topics through its employment and education task force.

This year's B20 process started on September 1, 2016 when Germany officially took over the B20 Presidency. At this moment, five task forces and two cross-thematic groups took up their work and started productive discussions on a broad range of subjects. The employment and education task force consisted of employers' organizations as well as companies from a variety of sectors. Its 98 members from 26 countries were chosen with respect to geographical and gender balance, representing all continents.

After preliminary discussions between the Chair, the Co-Chairs, and representatives of the network and knowledge partners, the task force gathered several times in Geneva, Berlin and online, with its last official meeting on March 22, 2017 in Paris. During this Conference, all B20 task forces and cross-thematic groups came together to present their work not only to each other, but also to G20 Sherpas. Besides the physical meetings and conference calls, task force members could also give their recommendations via e-mail.

The result of this work-intensive process is this policy paper, which includes three recommendations to the G20, each containing three policy actions. They are explained in a nutshell in this executive summary.

Demographic changes, technological advancement, and an increased mobility are profoundly changing the world of work and are expected to do so even more in the future. Further new forms of work are evolving rapidly. Therefore, it is important for G20 members to promote open, dynamic and inclusive labor markets. This means, on the one hand, to remove legal and structural barriers on the labor market and to promote diverse forms of work, such as temporary or part-time work. Entrepreneurs should be encouraged to operate in the formal sector by reducing the cost and time of business registration, spreading information about how to register, and stamping out corruption.

On the other hand, governments should ensure policy frameworks that improve female entrepreneurship and female labor market participation. This means removing legal restrictions that hinder their participation in the labor market and finding ways to demystify the science, technology, engineering and mathematics (STEM) subjects to girls and women and therefore improve their access to careers in this sector. Also, the G20 commitments of reducing the gender participation gap by 25 percent by 2025 have to be properly implemented at a national level.

Finally, G20 countries should bring labor migration policies in line with labor market needs. Thus, governments should set up easy-to-understand, employment-friendly immigration law, which allows easy access to the formal labor market and reduces incentives for informality. They should also facilitate the debate on how to create a framework which results in win-win situations for migrants and the countries of origin and the receiving countries.

The advent of technological change has led to diverging impacts on labor markets across countries in particular as regards the impact on skills and therefore education and learning for life. G20 members should harness the potential of technological change through better education and training, entrepreneurship and innovation frameworks. This means to implement clear and consistent regulations for businesses to operate and innovate in, while reducing bureaucracy and legal barriers to drive innovation, which can be best achieved in close collaboration with companies.

Today, there is a high level of unemployment globally, yet many companies find it difficult to fill positions with workers who bring the right skills. To address these issues, G20 countries should urgently invest in skills development by identifying jointly with the business community the skills needs of each country and establish in cooperation with the social partners vocational training programs that instruct workers in skills that make them competitive in the new economy. Governments need to implement their commitments such as the ILO G20 training strategy, the G20 principles for quality apprenticeships or the G20 apprenticeships initiative. Furthermore, technology should be used as a complementary tool to improve access to and delivery of quality skills based education, and educational institutions need to adapt by ensuring availability of technology within their facilities, and providing more flexible learning concepts that connect people to sources of knowledge more quickly and at an earlier age.

But not only education is important to ensure the best use of technological change; G20 countries should also promote entrepreneurship, which is crucial for more dynamic labor markets, not the least because entrepreneurs are job creators. Therefore, the G20 should support B20 actions regarding the G20 SMART Innovation Initiative, including a regular convening of the G20 SMART Innovation Forum, the establishment of G20 SMART industrial park to boost “G20 Young Entrepreneur Partnership”, and the set-up of G20 SMART Innovation Fund. They should also reduce administrative and regulatory barriers for start-ups, reduce financial barriers by refraining as much as possible from excessive taxation on new small businesses, and by enabling greater access to funding sources for SMEs. Finally, entrepreneurship education should be embedded into school, vocational education and training (VET), and university curricula.

Global trade has created many jobs that would not otherwise have existed and helped many workers to get better jobs, but human rights infringements as well as problems regarding safe and healthy work conditions remain a concern. G20 members should create a global level playing field and promote fair competition. It has to be avoided to create a two-class workforce, with those related to a global supply chain receiving better protection and access to health and safety measures than those producing for the domestic market. In order to achieve this, governments have to implement and enforce legislation that is respecting human rights and labor protection standards. Companies have to respect human rights and national legislation and can support improvements in working conditions. In fact, many companies are already actively contributing to creating safe and healthy working environments, and there are numerous alliances, initiatives and measures, which they use to meet their responsibility in global supply chains. Governments should not only acknowledge these existing efforts, but also build on existing initiatives such as the Vision Zero Fund, created under the German G7 Presidency or the ILO Action Plan on Decent Work in global supply chains. Building on these initiatives rather than creating new ones will avoid duplication, which would in the end jeopardize the success of any initiative. Finally, the G20 should promote the UN Guiding Principles on Business and Human Rights, which spell out clear duties of governments and responsibility for companies. Based on these principles, governments should develop and implement National Action Plans. All G20 countries should adopt the OECD Guidelines for Multinational Enterprises and endeavor to attract additional non-OECD countries to these Guidelines, in order to strengthen responsible business conduct and shape a global level playing field.

All the above mentioned issues can be best addressed through international collaboration. The G20 have a key role to play in implementing new frameworks and supporting the creation of open, dynamic and inclusive labor markets that allow the integration in the workforce of as many workers as possible, while respecting diversity. The present paper should be seen as a strong support to the G20 members to implement their earlier commitments and to elaborate new strategies. These should not only improve the access to work but also create a global level playing field and strengthen fair competition.

Recommendations

Recommendation 1: Promote Open, Dynamic and Inclusive Labor Markets – G20 members should promote open, dynamic and inclusive labor markets by removing structural and legal barriers, promoting diverse forms of work and female employment, and by bringing labor migration policies in line with labor market needs.

Policy Action 1.1: Promote Diverse Forms of Work – Governments should remove legal and structural barriers on the labor market and promote diverse forms of work (e.g. diverse forms and terms of employment and work organization).

Policy Action 1.2: Promote Female Employment – Governments should ensure policy frameworks that improve female entrepreneurship and female labor market participation.

Policy Action 1.3: Adopt Migration Policies in Line with Labor Market Needs – G20 countries should bring labor migration policies in line with labor market needs including those of enterprises.

Recommendation 2: Harness Technological Change – G20 members should harness the potential of technological change through better education and training, entrepreneurship, and innovation frameworks.

Policy Action 2.1: Establish Regulations that are Conducive to Business Innovation – G20 countries should implement clear and consistent regulations while reducing bureaucracy and legal barriers to drive innovation.

Policy Action 2.2: Invest in Skills Development – G20 countries should urgently invest in skills development by identifying jointly with the business community the skills needs of each country and establish in cooperation with the social partners vocational training programs that instruct workers in skills that make them competitive in the new economy.

Policy Action 2.3: Promote Entrepreneurship – G20 countries should promote entrepreneurship and entrepreneurship education.

Recommendation 3: Create a Global Level Playing Field – G20 members should create a global level playing field and promote fair competition.

Policy Action 3.1: Implement and Enforce National Legislation – G20 countries should ensure better implementation and enforcement of legislation at the national level. It is the duty of the State to protect people in its territory against human rights infringements and it is the responsibility of companies to comply with national laws and respect human rights.

Policy Action 3.2: Build on Existing Initiatives – G20 members should build on the German G7 Presidency as well as the ILO ILC Discussion on Decent Work in global supply chains and strengthen existing initiatives on promoting sustainable supply chains.

Policy Action 3.3: Promote the UN Guiding Principles and the OECD MNE Guidelines – The G20 should promote the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises in order to strengthen responsible business conduct and shape a global level playing field.

Introduction

Globalization and interconnectedness, coupled with exponential technological progress and innovation, have created a wealth of opportunities. However, many societies still face obstacles to progress, including persistent unemployment, particularly youth unemployment, weak or unstable growth, high levels of informality, poverty and human rights challenges. Inequality and a lack of opportunity hamper the ability of people to deploy their talents and abilities optimally in society, to advance and succeed in life.

Against this background the B20 fully supports the Sustainable Development Goals (SDGs), particularly SDG 8, which calls for "sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". It is imperative that all people have access to quality education and training programs and are given the best possible conditions to effectively enter and navigate in the labor market. Work is the most fundamental means for oneself and one's family, developing personally and growing in prosperity. We need to do more to enable everyone to benefit from globalization and the changing world of work.

Concerted efforts at the international level are important in this regard. The G20 has a key role to play in sharpening the focus of global economies on such vital goals as improving access to the labor markets particularly for disadvantaged groups, strengthening the alignment of education and training systems with labor market needs, ensuring that employment is safe and occurs in the formal economy, and improving the implementation and enforcement of commitments made with regard to human rights and international labor standards, especially the ILO Fundamental Principles and Rights at Work.

For this, the G20 must increase the peer pressure among its member states and on the international institutions in which they belong to act now and to deliver on their promises of more quality jobs and sustainable growth. They must also encourage them to start working on the development and implementation of National Action Plans on Business and Human Rights. The G20, moreover, must give a strong political impulse to strengthening the social dimension of globalization and facilitating migration flows. A Global Conference at the end of the next G20 Presidency would be an important step in the regard. The recommendations put forth by the B20 Task Force on Employment and Education are fundamental prerequisites for fully unleashing the opportunities created by globalization, new technologies, and innovation.

Context – The World in Which Business Operates

A number of factors are severely impacting the workforce, disrupting business models, and radically changing the workplace in terms of by whom, where, when, and how work is done, what work is done, as well as the institutions that support the workforce. The four main drivers of this disruption are demographic upheaval, ever present and changing digital technology, the accelerated rate of change and business-model innovation, and globalization. On top of this, there are unprecedented levels of global migration.

In 2015, the global number of unemployed people reached 197.1 million – this is 1 million more than in 2014 and over 27 million higher than pre-crisis levels.[1] The current rate of youth neither in education, nor in employment or training (NEET) ranges from 10 percent to well over 30 percent in G20 countries, and has been on the rise in several G20 countries for the past few years.[2] The current global female labor force participation is at 46.6 percent compared to that of men which is at 76.1 percent.[3] These

[1] ILO, *World Employment and Social Outlook: Trends in 2016* (2016), accessed November 14, 2017, http://www.ilo.ch/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_443472.pdf.
[2] OECD, *OECD Employment Outlook* 2016 (Paris: 2016), accessed November 14, 2017, http://www.oecd-ilibrary.org/employment/oecd-employment-outlook-2016/executive-summary_empl_outlook-2016-4-en.
[3] ILO, *Women at Work: Trends 2016* (Geneva: 2016), http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_457317.pdf.

data illustrate the employment challenges currently facing G20 countries, and the trend is not expected to improve for the next few years. Global unemployment is expected to rise by 2.3 million in 2016, and another 1.1 million in 2017.[4] Albeit the global unemployment rate is expected to remain stable at 5.9 percent in 2019.[5]

Demographic changes are having an impact. In the United States, 77 million Millennials (individuals born between 1980 and 1995)[6] now make up more than half the workforce. In some countries the age distribution is highly concentrated in the age group below 20, as is the case in India.[7] Millennials expect a mobile work environment and are fueling the new "freelance economy", and they will also spend no longer than 16 months with any company on average.[8] At the same time, the increasing retirement age in many pension systems will also have an impact. A growing number of baby boomers are working into their 70s and 80s, which is in the main driven by financial necessity and improved health. Nearly one-third of American[9] and a quarter of Australian[10] baby boomers believe they will have to work into their 80s.

Broad access to disruptive technologies and business models such as automation, crowd-sourcing, cognitive technologies, and new business models (e.g. the sharing economy) have unleashed unparalleled transformation on the types and availability of jobs for the future, as well as how business plans, designs and re-imagines its work of the future and how, when, and where work is done and what work is done.[11]

Technological change, which while creating jobs, increasing productivity, and creating more wealth and access to new markets, has also lead to job losses as machines substitute and augment human labor, as well as the demolition of old professions that make way for new ones. According to an Oxford University Martin School of Business study, 47 percent of the jobs in the Unites States were at 'high risk' of computerization, in that a substantial number of activities currently performed by humans could be automated in the next 10 to 20 years.[12] This does not mean that all jobs are disappearing. Workers are and will continue to be displaced, as jobs are changed and augmented with technologies, and new working methods (e.g. crowd working) introduced. Research by Deloitte United Kingdom (UK) shows that in the UK, for the last 15 years, technology has been a "great job-creating machine" – 800,000 professions have been lost, but nearly 3.5 million new ones have been created.[13]

Adding to the complexity is a potential global shortage of about 38 – 40 million high-skilled workers, with a 16 – 18 million shortage in advanced economies. Furthermore, the lack of approximately 45 million middle-skilled individuals in developing countries is expected. On the other hand, a potential surplus of 90 – 95 million low-skilled workers is projected with a majority (58 million) in developing and emerging economies.

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[4] ILO, *World Employment Social Outlook* (Geneva: 2016), http://www.ilo.org/global/research/global-reports/weso/2015/lang--en/index.htm.
[5] ILO, *World Employment and Social Outlook – Trends 2015* (Geneva: 2015), accessed January 16, 2017, http://embargo.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_337069.pdf.
[7] According to the CIA World Factbook, 45.7% of India's population is 24 years old or younger, CIA World Factbook, accessed April 13, 2017, https://www.cia.gov/library/publications/the-world-factbook/geos/in.html.
[8] Deloitte, *The 2016 Deloitte Millennial Survey: Winning over the Next Generation of Leaders* (Paris: 2016), 5-27, https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-millenial-survey-2016-exec-summary.pdf.
[9] Blake Ellis, *More Americans Delaying Retirement Until Their 80s*, CNN Money (2012), accessed April 17, 2017, . http://money.cnn.com/2012/10/23/retirement/delaying-retirement/index.html.
[10] Natasha Bita, *Baby boomers to work into 80s* (News.com.au: 2013), accessed April 17, 2017, http://www.news.com.au/finance/superannuation/baby-boomers-to-work-into-80s/news-story/e111eaeff1b65eb09f81bb9cc8cfce4a.
[11] Deloitte, *The Future of the Workforce: Critical Drivers and Challenges* (Paris: 2016), 5-16, https://www2.deloitte.com/content/dam/Deloitte/au/Documents/human-capital/deloitte-au-hc-future-of-workforce-critical-drivers-challenges-220916.pdf.
[12] Carl Benedikt Frey and Michael Osborne, *The Future of Employment*, Oxford Martin School Working Paper (Oxford: 2013), 5-79, http://www.oxfordmartin.ox.ac.uk/downloads/academic/future-of-employment.pdf.
[13] Deloitte UK, *From Brawn to Brains. The Impact of Technology on Jobs in the UK* (Deloitte UK: 2015), 5-16, https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Growth/deloitte-uk-insights-from-brawns-to-brain.pdf

Technological advancement is causing business model innovation and new modes of working. The structure of how labor is accessed by organizations is moving to include channels beyond the balance sheet – the platform economy and crowdsourcing are two prevalent examples. The nature of jobs and work itself is changing at the same time. Robotics and cognitive technologies are creating a world where many employees will work and collaborate with robots and learning machines. Adding to this, efficiencies are increasing in some areas as people with common, low-level skills compete for work in a more efficient marketplace as a result of the gig economy. These changes are being felt across all organizations, industries, and geographies. According to the recent Deloitte Human Capital Trends report 2016, 42 percent of executives surveyed expect to increase the use of robotics and cognitive technologies within the next three years. However, contrary to some news headlines, most organizations do not expect workers to be replaced by machines. In fact, 20 percent expect automation to increase hiring levels, while 38 percent see no impact. Three out of four executives (76 percent) surveyed expect automation will require new skills in the workforce in the next one to three years.[14]

The study also showed an expected increase in the number and use of contingent freelance workers (people who make a living working without any formal employment agreement). Almost half of the executives surveyed by Deloitte (42 percent) expect to increase or significantly increase the use of contingent workers in the next three to five years, while only 16 percent expect a decrease. Today, more than one in three US workers are freelancers – a figure expected to grow to 40 percent by 2020.[15]

This change to the work environment requires more than ever, and urgently, modern education and training systems that are consistently aligned with labor market needs and practical requirements. As new technologies are introduced by companies, there needs to be a mechanism by which young people can acquire the relevant knowledge and skills needed to work with/alongside these technologies at the same time as current workers gain needed skills (work-based learning, experiential learning etc.). This way, young people are employable when they complete their courses and adult workers have skills that meet changing demand. We need to shift away from education systems that stop once people enter the workforce and into the system whereby skills and knowledge are developed continually. We need to ensure that the workforce generally effectively evolves with innovations in technology as opposed to being overtaken. Furthermore, too often, curricula are designed without sufficient involvement of companies, with the result that they do not meet the needs of labor markets. Additionally, in many countries work-based learning systems are inadequate because of inadequate economic framework conditions such as, for instance, high upfront costs. A further problem is that work-based learning systems, such as dual learning and apprenticeship schemes, are in some cases limited to traditional vocations and do not encompass modern professions. They may also be seen as a second option.

Looking beyond the workplace, the benefits of globalization have had a profound impact on the labor market. Overall trade has created wealth and jobs and opened new markets, although the distribution of the jobs and wealth has been fragmented. OECD research reviews the impact of trade on wages and job creation, "including its relation to economic growth, productivity, and income distribution as well as working conditions." It concludes that "in virtually all of these dimensions trade can play an important role in creating better jobs, increasing wages in both rich and poor countries, and improving working conditions."[16] Between 1990 and 2014, world trade increased about fivefold and global per capita income grew by a factor of 2.5. Over the last century, hundreds of millions of people have been

[14] Deloitte UK, *The Future of the Workforce: Critical Drivers and Challenges* (Deloitte UK: 2016), 25, op. cit.; Deloitte University Press, *Deloitte Global Human Capital Trends Report 2016* (Deloitte University Press: 2016), https://www2.deloitte.com/be/en/pages/human-capital/articles/introduction-human-capital-trends-2016.html.
[15] Deloitte University Press, *Deloitte Global Human Capital Trends Report 2016* (Deloitte University Press: 2016), 25, op. cit.
[16] Douglas Lippoldt (ed.), *Policy Priorities for International Trade and Jobs* (OECD: 2012), 125- 142, http://www.oecd.org/site/tadicite/50258009.pdf.

moved out of poverty. Others also argue that reduced trade volumes are partially responsible for the current reduction in global productivity gains. They attribute this to diminished competition in national economies and the shrinking role of comparative advantage. For example, if the United States two-way trade had grown at its historical annual rate of 5.86 percent between 2011 and 2014, U.S. productivity growth would have increased and would have delivered a $74 billion increase in U.S. GDP through supply-side efficiencies in 2014.[17]

Adding to the complexity of influences to labor markets is mobility, which has accelerated on a global scale. Worldwide, the number of individuals living outside of their country of birth has increased at a rate of about two percent per year since 2010, reaching 244 million in 2015. High-income countries have absorbed most of the recent growth in the global population of international migrants.[18]

Moreover, it is also important to note that we are currently in the midst of the largest mass displacement crisis since World War II.[19] As a result of conflict and economic dislocation, more than 65 million individuals were displaced in 2016,[20] including more than 21 million refugees (eight percent of all migrants). We thereby have to differentiate between providing a safe haven for refugees on the one hand, and facilitating greater cross-border labor mobility to support economic needs on the other. Government, business and society are doing a lot to integrate refugees but challenges remain, particularly in terms of language barriers, insufficient qualifications, the assessment and recognition of skills, cultural adjustments or psychological shocks. For the purposes of this paper the recommendations are focusing on labor migration, but this is no way understating the need and importance of taking action to address these challenges.

For business, the issue of voluntary mobility of skilled labor is of great importance. In Europe, for instance, 40 percent of employers reported in 2013 that they had trouble finding people with the required skills. While the skills gap is already a problem, this crisis is expected to be even more accentuated in the future. Looking ahead, future businesses will need more skills, including digital knowhow, management capability, creativity, entrepreneurship, and complex problem solving. Business needs to attract, retain and deploy key talent globally. There is also a need for low skilled labor. For example, in the United States the number of U.S. born workers without high school degrees is declining, while the U.S. Bureau of Labor Statistics projects that by 2022 there will be 4 million additional jobs in occupations that do not require a high school diploma. It is important to note that studies show that low-skilled foreign workers typically do not displace native born workers because these two groups generally undertake different jobs.[21]

[17] Gary Clyde Hufbauer and Zhiyao (Lucy) Lu, *Increased Trade: A Key to Improving Productivity*, Peterson Institute for International Economics (Washington, D.C.: 2016), https://piie.com/system/files/documents/pb16-15.pdf.
[18] United Nations, *International Migration Report* 2015 (New York: 2015), 6-36, http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2015_Highlights.pdf.
[19] European Commission, *ECHO Factsheet – Syria Crisis* (Brussels: 2016), 1-3, http://ec.europa.eu/echo/files/aid/countries/factsheets/syria_en.pdf.
[20] OECD, *International Migration Outlook 2016* (Paris: 2016), http://www.oecd-ilibrary.org/social-issues-migration-health/international-migration-outlook-2016_migr_outlook-2016-en.
[21] Misra, Tanvi, *Immigrants Aren't Stealing American Jobs,* The Atlantic *(*2015), accessed March 17, 2017, https://www.theatlantic.com/politics/archive/2015/10/immigrants-arent-stealing-american-jobs/433158/.

Challenges and Responses

There are many challenges to providing for efficient employment creation and access to the workforce, but none more so than the below:

1. Structural Challenges

Structural issues governing labor laws, tax laws, legal gaps, childcare/elderly care, access to education, access to the workforce and impingements to cross-border movements remain stubborn challenges to labor market access and development. In the context of a global economy, it is essential that regulation better facilitate for the free movement of goods, services, and innovative ideas. Modern migration policies that are in line with labor market needs and enable voluntary labor migration across borders are also critical. Global leaders and policy-makers need to adapt regulation to contribute to the creation of open, dynamic and inclusive labor markets, which includes enabling geographical mobility and mobility between employment and within one`s career, encouraging the growth of diverse forms of work which can support youth and women to gain access to the labor market, and discouraging informality. Furthermore, the world of work is changing rapidly and legislation often does not change at the same rate. However, it is of utmost importance that governments catch up with these changes, or the gaps will widen more and more.

2. Problem of Skills Mismatch

The technology phenomenon, the internet of everything, is anticipated to offer tremendous opportunities for entrepreneurs and society to innovate, start new businesses, and create new products/services that can improve people's lives. However, as stated earlier, the nature and speed of technological change is likely to create a major disruption in the world of work. Governments need to put in place policy settings that will enable an accelerated pace of innovation, give people the skills they need to get into and advance in the labor market and allow them to make the best of new possibilities generated by technological change. Education policy will be a critical enabler for this. The aim should be to position workers to adapt to technologies and the emerging jobs, while considering the diverse national realities and circumstances. It is notable that a number of studies find that uneven distribution of skills and education in a society is a prime driver of income polarization that can be seen in G20 countries. Technology and STEM occupations and curricula have to be developed to meet labor market needs, and be developed in a way that is inclusive and does not, for example, increase gender income inequality. Improving skills alignment, access to education, and quality education, along with worker training can help reduce these economic disparities. It is also important that we change mindsets for example to proactively encourage and support advancement of women in STEM fields.

3. Poor Enforcement of National Laws

Globalization has increased the fragmentation of production processes as intermediate stages are performed by different suppliers and link many jobs across borders through global supply chains. Given the disparity of supply chains, and the fact that the majority of production in the producing world is for local consumption, steps are needed to better implement and enforce legislation at the national level. This is essential in contributing towards safe and healthy working conditions while shaping a global level playing field. Governments should endeavor to protect people in their territory against human rights infringements while businesses need to comply with national laws and respect human rights. The proper implementation of the United Nations (UN) Guiding Principles for Business and Human Rights, the development of National Action Plans on Business and Human Rights and the dissemination of the OECD Guidelines for Multinational Enterprises beyond the OECD Member States are meant to facilitate responsible business conduct.

Recommendation 1: Promote Open, Dynamic and Inclusive Labor Markets

G20 members should promote open, dynamic and inclusive labor markets by removing structural and legal barriers, promoting diverse forms of work and female employment, and by bringing labor migration policies in line with labor market needs.

Policy Actions	
1.1	**Governments should remove legal and structural barriers on the labor market and promote diverse forms of work (e.g. diverse forms and terms of employment and work organization).** • Governments should establish simple, transparent, flexible and predictable legal employment frameworks and lower structural barriers, enable workplace flexibility and reduce tax burdens to facilitate transitions from informality to formality and to promote diverse forms of work. • Governments should also create incentives to encourage entrepreneurs to operate in the formal sector by reducing the cost and time of business registration, spreading simple and clear information about how to register businesses and innovation and stamping out corruption. • Governments should fully implement International Labor Organization (ILO) Recommendation 204, the ILO Transition from the Informal to the Formal Economy Recommendation.
Owner: G20, G20 members	**Timing** Status update by 2018 G20 leaders meeting in Argentina
1.2	**Governments should ensure policy frameworks improve female entrepreneurship and female labor market participation.** • Governments should remove legal restrictions that hinder women's participation in the labor market. • Governments should understand the trigger points of STEM drop outs for women and take steps to address these. This includes taking steps to demystify STEM occupations in schools and addressing cultural norms that may discourage women from acquiring technical (STEM) skills. • Proper national implementation of G20 commitments is key to achieve the self-set target of reducing the gender participation gap across G20 countries by 25 percent by 2025. Governments must act now to bring their country on track for reaching this target.
Owner: G20, G20 members	**Timing** Status update by 2018 G20 leaders meeting in Argentina
1.3	**G20 countries should bring labor migration policies in line with labor market needs including those of enterprises.** • Governments should set up easy-to-understand, employment-friendly immigration law which allows easy access to the formal labor market and reduces incentives for informality. • The G20 should facilitate the debate on how to create a framework which results in win-win situations for migrants and the sending and receiving countries. Furthermore, concrete steps on how to reach these objectives should be elaborated
Owner: G20, G20 members	**Timing** Status update by 2018 G20 leaders meeting in Argentina

Context

Promoting dynamic and inclusive markets requires actions against three labor market characteristics:

1. having appropriate regulation that provides for diverse kinds of labor;
2. increasing access to the labor market for women and youth;
3. enabling free movement of people to better match demand and supply of labor.

A firm G20-wide commitment is needed to remove structural and legal barriers to employment and labor market participation, in particular for women and youth, as well as to facilitate mobility. This show of commitment would reinforce the importance of undertaking structural reforms and assist member countries to overcome local political resistance to any of the proposed policies.

Policy Action 1.1: Promote Diverse Forms of Work

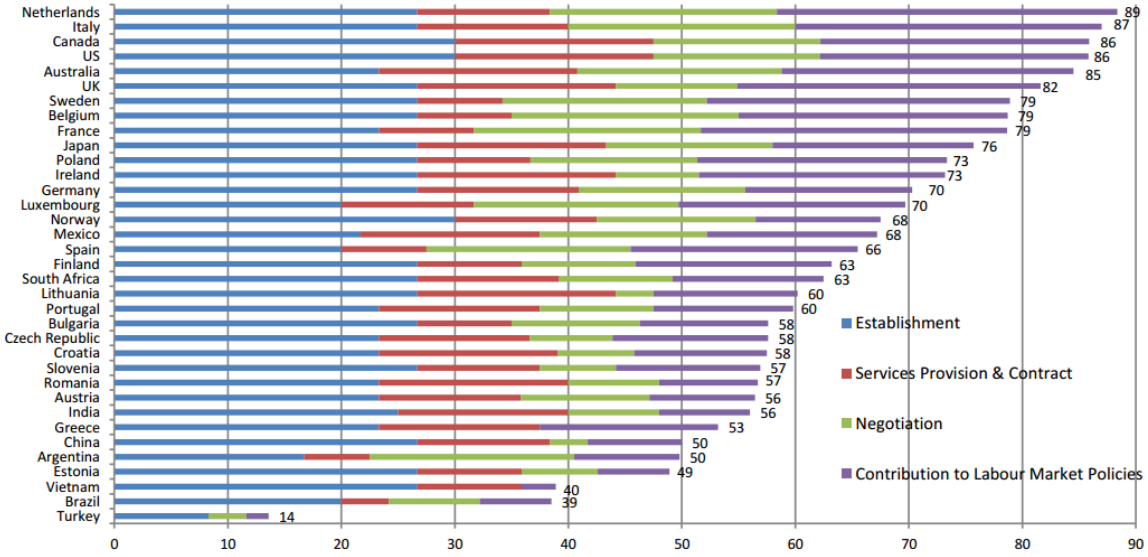
Governments should remove legal and structural barriers on the labor market and promote diverse forms of work (e.g. diverse forms and terms of employment and work organization).

To create employment, companies require a stable and employment-friendly environment which encourages them to hire employees according to their needs. Further new forms of work are evolving rapidly and this will continue into the future. For example, digital technology has facilitated the emergence of new employment related activities including platforms, open talent networks, and crowd sourcing, just to name a few. Open, dynamic and inclusive labor markets that offer a diversity of work contracts (including temporary and part-time work) will therefore be an even more essential part of an employment-friendly environment. The diversification of working conditions and the rising variety of forms of work, such as fixed-term work, agency work, free-lance, as well as the so-called on-line work provide for new solutions to the labor market, increasing labor market participation and allowing for better balance between work and life.

Exhibit 1 | There is a Positive Correlation Between Regulation Conducive to Agency Work and the World Economic Forum Global Competitiveness Index.

Building from the level of regulation on agency work, the World Employment Confederation, together with the Boston Consulting Group, has built a smart regulation index. The Smart Regulation Index shows a clear, positive correlation between how countries regulate agency work and the World Economic Forum Global Competitiveness Index. Markets that score best in terms of smart regulation of the employment industry are also those that score best in term of competitiveness. In other words, achieving an appropriate regulation on the employment industry that strikes a balance between flexibility and security is key to increase labor market efficiency and the overall competitiveness of a country.

Ciett Smart Regulation Index



Source: World Employment Federation, *Smart Regulation of Employment and Recruitment Industry Makes Countries More Competitive* (January 16, 2017), http://www.wecglobal.org/index.php?id=110&tx_ttnews%5Btt_news%5D=563&cHash=234b127f8bae7ffc1114b10256a3ad23.

Many layers of regulation, over-regulation and confusion in labor legislation create uncertainty for companies and prompt caution when it comes to recruiting. As numerous studies have shown, labor market rigidities and excessive legislation on diverse forms of work prevent particularly youth and women from accessing the formal labor market. Reducing structural barriers in labor market regulations and allowing for a flexible switch among diverse forms of work would increase labor market participation especially among these groups.[22] Lean, efficient regulation does not mean less protection for workers. But worker protection and benefit schemes will have to become much more agile. They must apply to all sorts of workers, including players in the ever-growing sharing economy, to ensure a level playing field for all forms of employment.[23]

Barriers with regards to employment agency work, which need to be addressed, may include, for instance, a lack of freedom of establishment or how easily can agencies set up a legitimate business in a country. They may also include a lack of freedom to provide services and contracts, the lack of freedom of negotiation and social protection as well as the lack of freedom to contribute to labor market policies – including public private partnerships, access to work permits and to training for workers, and

[22] Gordon Bertcherman, *Designing Labor Market Regulations in Developing Countries* (IZA World of Labor: 2014), https://wol.iza.org/articles/designing-labor-market-regulations-in-developing-countries/long.
[23] INSEAD, Adecco Group and Human Capital Leadership Institute, *Global Talent Competitiveness Index 2017* (INSEAD: 2016), vii, http://www.gtci2017.com/documents/GTCI_2017_web_r5.pdf.

the commitment to fight illegal practices.

The opportunities for additional employment are particularly marked in small and medium-sized enterprises (SMEs), which are the backbone of most economies around the globe. And it is precisely SMEs that do not have a separate department to deal with labor legislation issues. Employment-friendly environments, which offer a diversity of work contracts (including temporary and part-time work) and easy-to-understand, employment friendly labor law that give legal certainty and predictability for the establishment and termination of work contracts, based on business practice, are therefore especially important to fully unleash the employment potential of SMEs.

Open and dynamic labor markets are also of fundamental importance to tackle informality. In developing economies, many individuals are attracted to the informal economy out of necessity, that is, they have no other opportunities. For instance, nine out of ten young workers in low-income countries, and two thirds of young workers in middle-income countries are employed informally.[24] In addition, in many emerging economies, new jobs are predominantly created in the informal sector.[25]

- Governments should establish simple, transparent, flexible and predictable legal employment frameworks and lower structural barriers, enable workplace flexibility, and reduce tax burdens to facilitate transitions from informality to formality and to promote diverse forms of work.
- Governments should also create incentives to encourage entrepreneurs to operate in the formal sector by reducing the cost and time of business registration, spreading information about how to register their business or innovation, and stamping out corruption.
- Governments should fully implement ILO Recommendation 204, the ILO Transition from the Informal to the Formal Economy Recommendation.

Policy Action 1.2: Promote Female Employment

Governments should ensure policy frameworks improve female entrepreneurship and female labor market participation.

Enabling access for more women to enter the labor market makes economic sense. Data shows that raising the female labor force participation rate (FLFPR) to country-specific male levels would raise GDP in the United States by 5 percent and in Japan by 9 percent.[26] A variety of studies show that companies with a more diverse workforce perform better in terms of sales revenue, number of customers and market share, and are more innovative.[27]

Although there has been a growth in the number of women in the workforce, we continue to see women and other underrepresented groups in the minority at the upper echelons of business and politics. A BIAC Deloitte report, *Putting ALL Our Minds to Work: An Assessment*, showed that changes (2010-2014) have taken place across business and by government to advance women in the workplace but progress is slow.

Women are also underrepresented as business owners. In some countries this is due to gender-based legal and regulatory obstacles, but even where this is not the case, women face more subtle issues

[24] ILO, *Global Employment Trends for Youth 2015* (Geneva: 2015), 50-72, http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_412015.pdf.
[25] ILO and WTO, *Globalization and Informal Jobs in Developing Countries* (Geneva: 2009), http://ilo.ch/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_115087.pdf.
[26] Elborgh-Woytek and al., *Women, Work, and the Economy: Macroeconomic Gains from Gender Equity*, IMF (2013) http://www.imf.org/external/pubs/ft/sdn/2013/sdn1310.pdf.
[27] Deloitte and BIAC, *Putting All Our Minds to Work: An Assessment* (Paris: 2014), http://biac.org/wp-content/uploads/2015/02/FINAL-8798482-Deloitte-BIAC-Gender-reportFF.pdf.

due in part to inherent bias and cultural norms. OECD data from 2012 tells us that across the EU countries, only 25 percent of business owners with employees are women (more details on women's entrepreneurship are provided under policy action 2.3.).

Access to the labor market for many women across G20 countries and beyond comes down to basic legal restrictions – discriminatory practices. The World Bank *Women, Business and the Law 2016* report draws on comparable data across seven indicators: accessing institutions, using property, getting a job, providing incentives to work, building credit, going to court, and protecting women from violence. From this study we have a clear list of laws, by country, that potentially limit women's access to the labor market. For example, laws on work-related maternity, paternity and parental leave; gender differences in tax regulations which can affect a woman's decision to enter the workforce in the formal sector, especially if it means paying disproportionately higher taxes; ease, cost and availability of care for young children and free public education for school-age children can affect whether a mother decides to work outside the home for paid compensation or stay at home with her children; other restrictions include building credit, going to court, owning property, accessing institutions. The data is specific data and provides a road map to focus efforts.

- An important government response to empowering women is to remove legal restrictions that hinder their participation in the labor market.

Skills and competencies are the determinants of an individual's place and mobility in the labor market. Women now outnumber men in global university attendance and graduation rates. According to a study published by Yale Global Online, the average global university enrollment ration in 1970 was 160 men per 100 women, today it stands at around 93 men per 100 women.[28] Moreover, in some G20 countries, such as Japan, South Korea, Turkey, India and China, the number of female university participation is not equal to that of men. In Japan in 2013, 6 percent of women aged 25 to 34 years had a tertiary degree compared with 56 percent of men.[29] In the United States, in 2015, 39 percent of women aged 25 to 29 had completed a bachelor's degree, while the same was true for 32 percent of men.[30]

Even though women are over-represented among tertiary graduates (57 percent of first-time graduates in OECD countries), they remain under-represented in certain fields of study, such as science and engineering. There are, on average, three times more male graduates in engineering than female graduates.[31] This varies within countries. For example, Poland has the lowest gender imbalance in engineering (1.6 man per woman) and Japan the highest (6.9 men per woman). In science, only Italy and Portugal have a larger share of female graduates.[32] According to the OECD, these results are partially explained by gender differences in young peoples' attitudes and aspirations, with fewer girls opting for science and engineering, and fewer men in occupations like education.

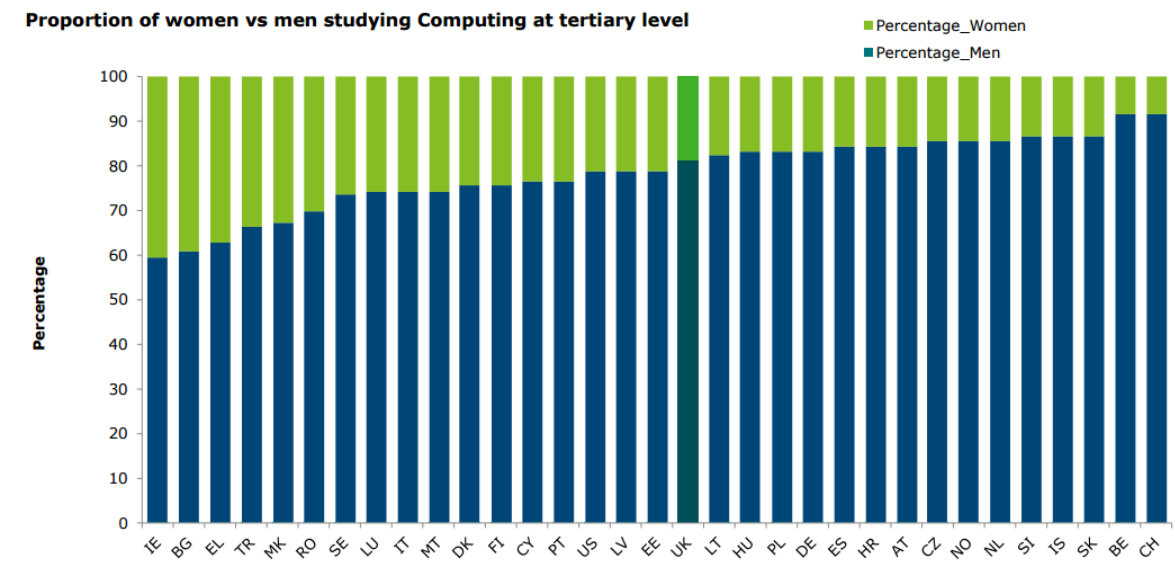
According to the OECD, in "the field of humanities and arts, none of the countries with available data have more male graduates than female.[33] The same pattern is observed in the fields of social sciences, business and law, with the exceptions of Indonesia, Japan, […] and Turkey."[34]

Specifically within the UK, according to a Deloitte study[35], 80 percent of students who are female study

[28] Yale Global Online, *Worldwide Women Outnumber Men in Universities and Graduates* (Yale Global Online: 2015), https://issuu.com/prenticereid/docs/worldwide_women_outnumber_men_in_un.
[29] OECD, *Inequality Greater Gender Equality for More Inclusive Growth* (2015), https://www.oecd.org/policy-briefs/japan--greater-gender-equality-for-more-inclusive-growth.pdf.
[30] Mikhail Zinshteyn, *College Graduation Rates Rise, but Racial Gaps Persist and Men Still Out-earn Women*, The Hechinger Report (2016), http://hechingerreport.org/college-graduation-rates-rise-racial-gaps-persist-men-still-earn-women/.
[31] OECD, *Education at a Glance 2016: OECD Indicators* (Paris: 2016) http://www.keepeek.com/Digital-Asset-Management/oecd/education/education-at-a-glance-2016_eag-2016-en#page1.
[32] OECD, *Education at a Glance 2016: OECD Indicators* (OECD: 2016), op. cit.
[33] OECD, *Education at a Glance 2016: OECD Indicators* (Paris: 2016), 25, op. cit.
[34] OECD, *Education at a Glance 2016: OECD Indicators* (Paris: 2016), 25, op. cit.
[35] Deloitte UK, *Technology, Career Pathways and the Gender Pay* Gap (Deloitte UK: 2016), https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Documents/deloitte-uk-women-in-stem-pay-gap-2016.pdf.

medicine, 76 percent veterinary science and 61 percent biological sciences. This compares to 86 percent of students who are male studying engineering and technology, 83 percent computer science and 61 percent mathematical sciences. This imbalance starts prior to tertiary education. In the UK, 48 percent of women take STEM subjects at secondary education level (GCSE). This reduces to 41 percent at A-Levels (senior high school).[36] According to UNESCO, only 38 percent of countries have achieved gender parity in secondary education against 63 percent in primary.[37] This is in some countries linked to the fact that women are leaving school early. Almost a quarter of young women aged 15-24 today (116 million) in developing countries have not completed primary school and therefore lack skills for work. Young women make up 58 percent of those not completing primary school.[38] In India, for instance, a Unicef study puts primary school attendance for girls at 81 percent and secondary school attendance at a mere 49 percent.[39]

Exhibit 2 | Proportion of Women vs Men Studying Computing at Tertiary Level



Note: STEM subjects in EF48 (ISCED97).

Source: Eurostat, Deloitte, *Technology, Career Pathways and The Gender Pay Gap* (2016), https://www2.deloitte.com/uk/en/pages/growth/articles/technology-career-pathways-gender-pay-gap.html.

There is no doubt that steps need to be taken in concerned countries to keep more girls in school, but even if that was solved, given the technological impact on the future of work, there are other issues such as workplace flexibility or cultural norms that need to be considered to give women the skills to participate in the workplace and also to be equal income recipients.

- Governments should understand the trigger points of STEM drop outs for women and take steps to address these. This includes taking steps to demystify STEM occupations in schools and addressing cultural norms that may discourage women from acquiring technical (STEM) skills. This may best be achieved through partnerships with businesses.

Advancement of women within the workforce is stubbornly slow. According to data posted on Catalyst,

[36] Deloitte UK, *Women in STEM: Technology, Career Pathways and the Gender Pay Gap* (Deloitte UK: 2016), 25, op. cit.
[37] UNESCO, UNFPA, UN Women and World Bank, *Empowering Adolescent Girls and Young Women through Education* (Nepal: 2015),1-8, http://unesdoc.unesco.org/images/0023/002319/231944e.pdf.
[38] UNESCO, *Fact Sheet: Girls' Education – The Facts* (Nepal: 2013), 1-8, http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/GMR/images/2011/girls-factsheet-en.pdf.
[39] Unicef Statistics for India (2013), 1-8, https://www.unicef.org/infobycountry/india_statistics.html.

women hold only 12 percent of the world's board seats; progress in reaching senior management positions in Canada has stalled; 54 percent of companies on the Bombay Stock Exchange 100 have no women board-directors and women hold only 7.7 percent of board seats and just 2.7 percent of board chairs in India. In the United States, women currently hold 20 (or 4.0 percent) CEO positions at S&P 500 companies.[40] Data from the 30% Club shows in 2015 women made up 26.1 percent of FTSE-100 Boards, up from 12.5 percent 2010.[41] A further study by Cranfield University showed, however, a fall in the percentage of women on executive committees in the FTSE-100, from 18.1 percent in 2009 to 15.6 percent in 2014.[42]

The contributing factors are broad and there is no simple solution, otherwise a lot more progress would be made. Studies do show however that a lack of workplace flexibility has led to the underutilization of female talent where skilled women are prevented from advancing into top management and sometimes exit the labor market entirely.[43] Working women also still undertake the majority of the home/family care duties. Therefore, providing care infrastructure and access to childcare and elder care and enabling greater workplace flexibility for both men and women are likely to be significant steps in helping women to fully participate in the labor market. However, local realities and cultural norms have to be considered and it is important to keep in mind that there is no "one-size-fits-all" approach. Furthermore, cultural norms are a root cause of the challenges to female employment. Governments need to better understand underlying cultural norms and find ways to address these.

Female employment has been a key topic under former G20 Presidencies. G20 Labor Ministers committed, for instance, in September 2014 to a range of measures for boosting female participation, quality of employment and gender equity. The G20 agreed in 2014 to reduce the gender participation gap across G20 countries by 25 percent by 2025. These commitments need to be followed-up. An IOE – BIAC monitoring report from July 2016 shows that the implementation of the 2014 G20 commitments at national level is by far not sufficient.[44]

- Proper national implementation of G20 commitments is key to achieve the self-set target of reducing the gender participation gap across G20 countries by 25 per by 2025. Governments must act now to bring their country on track for reaching this target.[45]

Exhibit 3 | Best Practice Example: Promote Flexible Working

At J.P. Morgan, experienced hire jobs can be made flexible on the J.P.Morgan careers website following a conversation with the hiring manager. When a job is posted on the careers site, there is a tick box which recruiters can select if a job can be made flexible. Flexible jobs are dependent on the availability of jobs, line of business, the role of the job and the hiring manager.

[40] Catalyst, *Statistical Overview of Women in the Workforce* (Catalyst: 2016), http://www.catalyst.org/knowledge/statistical-overview-women-workforce.
[41] 30% Club, *30% Club Sets New Targets for Gender Diversity* (2016), https://30percentclub.org/press-releases/view/30-club-sets-new-targets-for-gender-diversity.
[42] 30% Club, *30% Club Sets New Targets for Gender Diversity*, op .cit
[43] ILO, *Women in Business and Management: Gaining Momentum* (Geneva: 2015), http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_334882.pdf.
[44] IOE/BIAC, *Main Outcomes of IOE-BIAC Survey on Implementation of G20 Commitments* (Paris: 2016), 1-2, http://www.ioe-emp.org/fileadmin/ioe_documents/publications/Other%20International%20Organisations/G20/EN/_2016-07-11__C-528_Interim_findings_IOE-BIAC_Survey_implementation_of_G20_commitments.pdf.
[45] For more information, check OECD, *OECD and the G20*, (Brisbane: 2014), consulted March 2017, https://www.oecd.org/g20/summits/brisbane/.

Policy Action 1.3: Adopt Migration Policies in Line with Labor Market Needs

G20 countries should bring labor migration policies in line with labor market needs including those of enterprises.

Economic development, demographic changes, and business needs have increased the need for greater cross-border labor mobility. OECD countries, for instance, face skills shortages in healthcare, science and engineering, education, trade and repair services. Overall country skills shortages vary widely.[46]

Around the world, developed economies are facing the impact of ageing populations and falling birth rates on labor. The shrinking domestic labor pool means shortages of workers at all skill levels particularly the high-skilled. Worldwide, a shortage of 38 to 40 million workers is projected by 2020. In Germany, for instance, a shortage of 6 to 7 million workers is predicted by 2025.[47] In such a context, attracting talents outside of the domestic labor market is crucial in addressing the shortage of skilled labor.[48]

A recently released report by Randstadt and IZA Institute for the Study of Labor in Bonn suggests that facilitating labor migration helps to substantially ease potential labor shortages and contributes to economic growth and employment. Coherent pro-active migration policies, in particular policies that systematically account for skill-specific demands by the national economy, lead to substantial benefits.[49] Many governments are aware of the need to attract skilled migrants and have migration and labor laws that provide for the entry of skilled foreign workers. However, problems of implementation persist. Too often, cumbersome, unclear, or continuously changing procedures and regulations, often adopted in response to protectionist demands from domestic constituencies, make it difficult for enterprises to hire or transfer skilled workers into their jurisdictions in a predictable and cost-effective way. Language can also be a significant barrier. Compliance with reporting demands is also onerous and costly for business, as often cited for instance, by U.S. companies. Also, national institutions in destination countries have important effects on the size and composition of the migrant population. While high-skilled migrants are relatively more attracted to countries with English as its native language, many vacancies, high average income, and low taxes, low skilled workers are relatively more present in countries with high minimum wages, high employment protection and high unemployment benefits. Apart from explicit skill-oriented migration policies, national policy-makers face strong incentives to create “good” institutions in order to attract or retain a skilled and productive migrant workforce. [50]

- Thus, Governments should set up easy-to-understand, employment-friendly immigration law which allows easy access to the formal labor market and reduces incentives for informality. They should also consider facilitating access to multilateral long-term visa and fast-track clearance for entrepreneurs within G20 countries.

Although some may think that immigration causes a brain-drain from the country of origin, studies show that home countries can also benefit. This includes resources flowing back to the home country as well as from increased skills from returning migrants, although the exact impact can be difficult to assess due to the difficulty in identifying causation and correlation, and quantifying the impact.[51] In

[46] Manpower, *2014 Talent Shortage Survey* (2014), accessed April 17, 2017, http://www.manpowergroup.com/wps/wcm/connect/ec2b6e68-bc26-4e5a-8493-78a9b53c5ab8/2014+Talent+Shortage+Infographic-Final.pdf?MOD=AJPERES.
[47] ILO, *ILO Global Estimates on Migrant Workers* (Geneva: 2015), http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_436343.pdf.
[48] INSEAD, Adecco Group and Human Capital Leadership Institute, *The Global Talent Competitiveness Index* (, 2015), op. cit.
[49] Randstadt, IZA, *People to Jobs, Jobs to People: Global Mobility and Labor Migration* (2017), accessed April 17, 2017, http://workforceinsights.randstad.com/hr-research-reports-iza-research-2017.
[50] Randstadt, IZA, *People to Jobs, Jobs to People: Global Mobility and Labor Migration* (2017), op. cit.
[51] Kathleen Newland and Sonia Plaza, *What We Know About Diasporas and Economic Development*, Migration Policy Institute

fact, Asian countries have employed strategies over the last several years in an effort to further benefit from migration. Some Asian countries have created a legal environment for positive engagement of emigrated populations, including flexible citizenship laws that allow for dual or multiple citizenship, flexible residence and visa arrangements that allow greater access to the home country of migrants and their families, and provisions for political and property rights specific to international migrants. Additionally, governments have created or partnered with organizations to engage migrants and incentivize durable connections between them and their home countries. Asian governments in particular have created programs focused on leveraging their emigrated populations as agents for development, tapping into their human and financial capital to bring additional investment into the country. Together, such initiatives can assist countries in utilizing their emigrated populations as assets for development and growth.[52]

Migrant workers play an important role in the economic development of their home countries, which goes beyond remittances, to include promotion of trade and foreign direct investment, businesses creation and entrepreneurship, and transfer new knowledge and skills.[53]

Labor migration provides economic opportunity not only for migrants and their families, but for the societies in which they live and work, and in many cases the country from which they originate. Better information sharing is necessary to debunk the popular misconception that migrants drain host country resources and rob origin countries of economic potential. In countries with a high level of immigration, political acceptance and support for more flexible labor market policies may be increased if local workers see that the threat from change is mitigated and that they have a chance to maintain a position in the labor market. That involves consideration in design of unemployment financial assistance, and coordinated reskilling and job search and placement programs.

- The G20 should facilitate the debate on how to create a framework which results in win-win situations for migrants and the sending and receiving countries. Furthermore, concrete steps on how to reach these objectives should be elaborated.

Open, dynamic and inclusive labor markets play a growing role for economic growth, competitiveness and development. In 2017, Germany and Morocco are holding the Presidency of the Global Forum on Migration and Development (GFMD), an initiative of the UN Member States to address the migration and development interconnections in practical and action-oriented ways.[54] In this process, civil society representatives are also involved. The International Organisation of Employers (IOE) and the World Economic Forum Global Future Council on Migration coordinate the work of the GFMD Business mechanism. Together they form the Business Advisory Group. The GFMD Business Mechanism is housed at the IOE.[55]
Besides the focus on migration, it is important to note that geographical mobility is not an end in itself, but should serve an important purpose: improve the ability to fill positions with workers who have the necessary skills. Providing the right people with the right skills and getting them in the right place at the right time has never been more urgent, nor more complex. Businesses will therefore need to attract, retain and deploy key talent globally. This cannot be done without the removal of structural and legal barriers that inhibit transitions.

(Washington D.C.: 2013), accessed March 20, 2017, http://www.migrationpolicy.org/research/what-we-know-about-diasporas-and-economic-development.
[52]Dovelyn Rannveig Mendoza and Kathleen Newland, *Engaging the Asian Diaspora* Migration Policy Institute (Migration Policy Institute Asia: 2012), accessed March 20, 2017, http://www.migrationpolicy.org/research/engaging-asian-diaspora.
[53] Dovelyn Rannveig Mendoza and Kathleen Newland, *Engaging the Asian Diaspora* (2012), op. cit.
[54] Dovelyn Rannveig Mendoza and Kathleen Newland, *Engaging the Asian Diaspora* (2012), op. cit.
[55] GFMD, *The Global Forum on Migration and Development (GFMD) and the Private Pector* (2016), accessed March 20, 2017, http://gfmdbusinessmechanism.org/.

Exhibit 4 | Best Practice Example: Support Migrant Workers

The PIOT Group is a Social Enterprise that provides an enabling environment for institutions and groups working closely with migrant workers. These groups engage in enhancing the experience of their end users by developing effective policies and visible services seeking to answer the problems faced by the migrant workers. Through its partnerships, the PIOT group develops a collaborative approach with all stakeholders in order for all parties to reap the benefits and confront the challenges of a global economy. It works closely with the Piot Foundation and many recognized charities in the UK and abroad. It particularly collaborates with the Certified Relocation specialists to provide migrant workers and their families' access to the best support services and mechanisms to enable a smooth integration into their host countries societies.

Support services include but are not limited to: Legal advice on personal and family matters, child care referrals, advice on well-being and work life balance, advice on money management/financial advisors, debt counselling, and many more.

Recommendation 2: Harness the Potential of Technological Change

G20 members should harness the potential of technological change through better education and training, entrepreneurship and innovation frameworks

Policy Actions		
2.1	**G20 countries should implement clear and consistent regulations while reducing bureaucracy and legal barriers to drive innovation** • Governments need to establish clear and consistent regulations for businesses to operate and innovate. Governments must closely cooperate with businesses to ensure an optimal regulatory framework to foster innovation.	
Owner: G20, G20 members		**Timing:** Status update by 2018 G20 leaders meeting in Argentina
2.2	**G20 countries should urgently invest in skills development by identifying jointly with the business community the skills needs of each country and establish in cooperation with the social partners vocational training programs that instruct workers in skills that make them competitive in the new economy.** • G20 Governments need to implement their commitments, i.e. the ILO G20 training strategy, the G20 principles for quality apprenticeships as well as the G20 apprenticeships initiative. • Technology should be utilized to maximize access to and delivery of quality skills based education, this includes formal, institutional education and life-long learning. • G20 members should promote vocational education systems and adapt curricula to labor market needs, by closely collaborating with business.	
Owner: G20, G20 members		**Timing:** Status update by 2018 G20 leaders meeting in Argentina
2.3	**G20 countries should promote entrepreneurship and entrepreneurship education.** • The G20 should support B20 actions regarding the G20 SMART Innovation Initiative, including: a regular convening of the G20 SMART Innovation Forum, the establishment of G20 SMART industrial park to boost “G20 Young Entrepreneur Partnership”, and the set-up of the G20 SMART Innovation Fund. Furthermore, the G20 countries should follow up annually on their Action Entrepreneurship Plan established in 2016. • Also, G20 governments should develop and implement ambitious plans that provide growth strategies for (young) entrepreneurs including innovation zones/hubs, financing, training etc. This includes the reduction of administrative, regulatory and financial barriers and the linking of entrepreneurship to education.	
Owner: G20, G20 members		**Timing:** Status update by 2018 G20 leaders meeting in Argentina

Context

The advent of technological change has led to diverging impacts on labor markets across countries in particular as regards the impact on skills and therefore education and learning for life. There are predictions of significant impact differences across advanced and developing countries by 2020.[56] A potential global shortage of about 38 - 40 million high-skilled workers is projected, with a 16 - 18 million shortage in the advanced economies. A potential shortage of 45 million middle-skilled individuals in developing countries is also projected. On the other hand, a potential surplus of 90 – 95 million low-skilled workers is projected with a majority (58 million) in developing and emerging economies.[57] As technology improvement and adoption increase at an accelerating rate, the urgency to re-skill people, help them move into new roles, and teach them how to reinvent themselves is greater than ever, with less reliance on corporations and increased reliance on technology and lifelong learning. "In terms of its net effect on employment, technological innovation is likely to require new technical and vocational skills, while many unskilled jobs will continue to be automated, basically through the replacement of humans by robots and algorithms empowered by big data."[58] Today, "there is a profound mismatch between, on the one hand, our educational systems that typically do a fair job of forming routine workers and professionals, and on the other hand the requirements of our emerging technology-driven society where machines are taking over routine jobs."[59]

For advanced economies, these imbalances could lead to more long-term and structural joblessness as more youths may lack the employable and technical skills to replace the many older workers retiring from the labor market. In developing economies, an inadequate supply of highly skilled workers could slow a nation's development into higher value-added industries and hinder the productivity gains. On the flip side, technology is providing opportunity for more innovation, unprecedented access to information and education and therefore a new way of learning and development for life. "Although there will be many opportunities for people with digital skills, technical skills must be complemented with social and project skills to meet the needs of the highly connected new economy where innovation comes increasingly from collaboration and co-creation."[60]

Several studies also suggest that skills imbalances exacerbate inequality. Skills are a key determinant of wages and therefore an unequal distribution of skills will feed through to an unequal distribution of earnings; although the exact mapping will depend on a range of factors. Skills and wages also help promote higher levels of social cohesion and intergenerational transmission. According to research conducted at The London School of Economics for a European Commission report, "The so-called 'race' between education and technology suggests a need for producing highly skilled workers to fulfil the increasing labor demands of our globalized and technological economies at a similar rate".[61] The report goes on further to call out priorities such as improving attainment, re-evaluating expenditure, and reducing inequality of access and opportunity. The OECD and other organizations affirm this thought in viewing skill development through education as an important element for the fostering of long-term economic growth.[62]

The British economist Anthony Atkinson touched on issues of equity that arise through educational programs aimed to prepare young people for the workforce. He believed these programs broadened

[56] Richard Dobbs and al., *The World at Work: Jobs, Pay and Skills for 3.5 Billion People* (McKinsey Global Institute, 2012), accessed March 20, 2017, http://www.mckinsey.com/global-themes/employment-and-growth/the-world-at-work.
[57] Richard Dobbs and al., *The World at Work: Jobs, Pay and Skills for 3.5 Billion People* (2012), op. cit.
[58] INSEAD, Adecco Group and Human Capital Leadership Institute, *The Global Talent Competitiveness Index* (2015), 11, op. cit.
[59] INSEAD, Adecco Group and Human Capital Leadership Institute, *The Global Talent Competitiveness Index* (2015), 12, op. cit.
[60] INSEAD, Adecco Group and Human Capital Leadership Institute, *The Global Talent Competitiveness Index* (2015), 12, op. cit.
[61] Abigail McKnight, Magali Duque and Mark Rucci, *Creating More Equal Societies: What Works?,*European Commission (Brussels: 2016), accessed March 20, 2017, http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7903&type=2&furtherPubs=yes.
[62] OECD, *Enabling the Next Production Revolution*, OECD (Paris: 2015), 5-42, https://www.oecd.org/mcm/documents/Enabling-the-next-production-revolution-the-future-of-manufacturing-and-services-interim-report.pdf.

access, improved quality, and increased social mobility, often pointing to Nordic examples.[63] The OECD follows in this line of analysis on two fronts: 1) broadening access to high-quality education for people across skills levels promotes economic growth and social inclusion, and 2) increasing inclusive and more egalitarian access to education could reduce the intergenerational transmission of income inequality and increase opportunities for upward mobility.[64]

The B20 Employment and Education Task Force urges G20 countries to tackle skills mismatch by putting in place policy settings that not only enable an accelerated pace of innovation for all members of society and make the best use of their skills, but also facilitate entrepreneurship and ensure the education curricula and learning is in line with the needs of business and the labor market. In order to achieve this, business should be involved in curriculum design, and equally they should also be thinking very carefully about their own education and training provision to ensure that their workforce can keep up to date with the new skills needed to work alongside or on new technologies. Furthermore, as many positions and forms of work do not yet exist and as therefore it is not possible to equip workers with the skills needed for those positions, it is important to provide basic education and soft skill training. Arguably, we need to inject more general purpose skills into the specialist subjects that dominate current tertiary education so that further specialist skills can be developed more readily and efficiently 'on the job'.

Policy Action 2.1: Establish Regulations that are Conducive to Business Innovation

G20 countries should implement clear and consistent regulations while reducing bureaucracy and legal barriers to drive innovation.

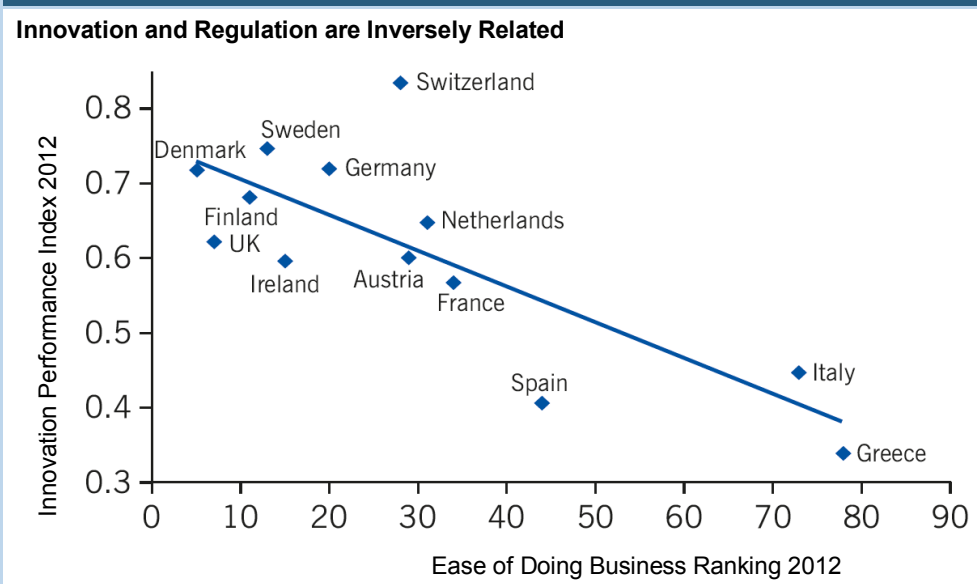
As the G20 states in its Blueprint on Innovative Growth, "Innovation is one of the key driving forces for global sustainable development, playing a fundamental role in promoting economic growth, supporting job creation, entrepreneurship and structural reform, enhancing productivity and competitiveness, providing better services for (…) citizens and addressing global challenges."[65] To be competitive in the global economy, businesses need to harness technology and innovation to deliver products and services that are cost-effective, convenient, functional and sustainable. A survey conducted by PwC in 2011 found that 80 percent of CEOs believed innovation drives efficiencies and leads to competitive advantage.[66] However, there are a number of barriers that businesses encounter when adapting to technological innovation. Chief among these are the additional costs of doing business, cited by 45 percent of CEOs. Compliance with unclear or inconsistent regulations, cited by 42 percent of CEOs, also incur costs.[67]

Regulations covering the establishment and operations of businesses can be particularly onerous for SMEs which, as studies of innovation and firm size have shown, are among the most technologically dynamic of enterprises. They also impact productivity and therefore job creation. In Australia, productivity is being choked by red tape, with the combined cost of administering and complying with public

[63] Tony Atkinson, *Inequality: What Can Be Done* (Harvard University Press, Cambridge: 2015), 5- 370, http://www.acarindex.com/dosyalar/kitap/acarindex-1436513133.pdf.
[64] OECD, *OECD Compendium of Productivity Indicators* (Paris: 2015), 8-42, http://ifuturo.org/documentacion/productivity%20indicators.pdf.
[65] *G20 Blueprint on Innovative Growth, 2016 Hangzhou Summit* (G20: 2016), accessed March 20, 2017, http://www.g20.utoronto.ca/2016/160905-blueprint.html.
[66] PwC, *14th Annual Global CEO Survey - Growth reimagined: Prospects in Emerging Markets Drive CEO Confidence* (2011), 5-36, https://www.pwc.com/gx/en/ceo-survey/pdf/14th-annual-global-ceo-survey.pdf.
[67] PwC, *Transforming: Technology, Innovation and Talent* (2016), accessed November 14, 2016, http://www.pwc.com/gx/en/ceo-agenda/ceosurvey/2016/transformation.html.

and private sector bureaucracy costing the nation $250 billion every year.[68] Rules are particularly adverse to the innovative process and the establishment of business, which can discourage the creation of new technology-based firms and innovative start-ups.

Exhibit 5 | Innovation and Regulation are Inversely Related



Source: Alexander S.Kritikos, *Entrepreneurs and their Impact on Jobs and Economic Growth* (DIW Berlin, University of Potsdam and IZA, Germany: 2014), accessed March 20, 2017, https://wol.iza.org/uploads/articles/8/pdfs/entrepreneurs-and-their-impact-on-jobs-and-economic-growth.pdf.

There is a balance as under-regulation can also lead to a climate of uncertainty that will threaten investment, national growth and competitiveness.

- Governments need to establish clear and consistent regulations for businesses to operate and innovate in. Governments must closely cooperate with businesses to ensure an optimal regulatory framework to foster innovation.

Policy Action 2.2: Invest in Skills Development

G20 countries should urgently invest in skills development by identifying jointly with the business community the skills needs of each country and establish in cooperation with the social partners vocational training programs that instruct workers in skills that make them competitive in the new economy.

Education is the back bone of economic empowerment and social development. It provides the skills to power our economies and empower people. Delivering and enabling quality education and equipping people with the right skills will result in the continued emergence of social mobility, in particular for young people.[69] However, in many countries, education and training systems have not kept up with

[68] Deloitte, *Get Out of Your Own Way - Unleashing Productivity* (Australia: 2014), accessed March 20, 2017 https://www2.deloitte.com/au/en/pages/building-lucky-country/articles/get-out-of-your-own-way.html.
[69] Deloitte UK, *Fair Access: Levelling the Playing Field for Young People from Disadvantaged Backgrounds*, (UK: 2016), 6-34, accessed March 20, 2017, https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/about-deloitte/deloitte-uk-fair-access-to-work-final.PDF.

digitalization and technological progress. Employers have reported talent shortages in many countries and sectors.[70] Looking specifically at STEM in the UK, for instance, by 2030, mathematics and science knowledge is forecast to increase in importance by eight percent for the average worker (based on an analysis of employment data and the quantitative database of knowledge attributes from the Occupational Information Network). Achieving this increase would be the equivalent of adding approximately 4,500,000 new STEM-enabled professionals to the UK's workforce, including teachers, scientists, engineers, IT and digital professionals, economists and statisticians." [71]

Regional and local stakeholders, also including regional support structures especially for SMEs like chambers, play a key role in designing and implementing effective workforce development infrastructure and responding to business needs. Therefore, dialogue at a national, regional and local level should be encouraged as it facilitates better understanding of skills scarcity and skills gaps, facilitating the design of effective skills development strategies. It also encourages the cooperation between local employers, regional policy-makers and education institutions, which will be key in responding to future skills needs.

Exhibit 6 | Best Practice Example: Provide Governments with Better Data to Tackle Skills Mismatch

A changing global economy and the rise of technology have dramatically transformed the types of workforce skills that are in demand. However, in communities around the world, there is a lack of reliable information on new and emerging skill needs.

To address this challenge, the Organization for Economic Cooperation and Development (OECD) and J.P.Morgan launched "Adapting to Changing Skills Needs" in 2016. The project will build an online statistical tool with indicators for Europe and South Africa, showing how countries compare against each other with regard to skills imbalances and highlighting skills and occupations which face the strongest labor market pressure. A cross-country report will be presented in July 2017. In addition, four country notes for European countries and South Africa will provide detailed recommendations for policy and practice.

The public private partnership combines OECD's established cooperation with national government stakeholders with J.P. Morgan's networks of local and regional partners including NGOs, training institutions and employer associations to deliver a holistic set of diagnosis and solutions.

A high level of education is not sufficient in itself. Many unemployed may be highly educated, but lack interpersonal and leadership skills, knowledge of foreign languages, readiness to learn, problem solving or other "soft skills" important for employability. Looking ahead, rather than just focusing on STEM and digital skills, future workers need to acquire a more balanced scorecard of talents; building up essential cognitive, social, process, content and problem-solving skills and abilities, as well as knowledge, and learning how to apply these within the relevant context. This may require a shift so that STEM subjects encompass more general purpose skills and knowledge, especially soft skills, and the arts and humanities become more technical (as businesses introduce more technology in these domains). Being able to apply technical skills in varying capacities will be the new norm[72], as technology will play a more and more important role in industrial relations and the world of work in general.

Workers will need to plan for their continuous upskilling to stay employable in the labor market.[73] An important aspect of skilling and re-skilling are the vocational education and training systems, which are underutilized by many, but provide a legitimate pathway to employment and advancement for workers.

[70] Manpower Group, *Talent Shortage Research Results* (2015), 5-42, accessed March 20, 2017, https://www.manpowergroup.fi/Global/2015_Talent_Shortage_Survey-full%20report.pdf.
[71] Deloitte UK, *Talent for Survival* (UK: 2016), 1-32, accessed March 20, 2017, https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Growth/deloitte-uk-talent-for-survival-report.pdf.
[72] Deloitte UK, *Talent for Survival* (Deloitte UK: 2016), op. cit.
[73] INSEAD, Adecco Group and Human Capital Leadership Institute, *Global Talent Competitiveness Index 2017* (2016), op. cit.

Unfortunately stigmas associated with these pathways persist not just amongst young people but also among their parents and peers.[74] This needs to change. There are a number of business leaders who have gone through apprenticeship systems.[75] Furthermore, vocational training does not only provide great opportunities to youth starting their career, but also for adults looking for a career change or seeking to re-enter the labor market.

Responding to this dilemma requires a fresh approach to education and learning, starting in preschool, running through primary and secondary school and extending into the workforce. It must involve government, education institutions, employment services and businesses, including SMEs. The latter have the potential to become the backbone of apprenticeship training. But they need practical support structures and practical guidance on local level by intermediary bodies such as chambers or other professional or sectorial organizations supporting apprenticeships in SMEs. That's why G20 should also establish appropriate measures and regional support structures for SMEs offering apprenticeship places enabling them to carry out in company training.

- G20 Governments need to implement their commitments, i.e. the ILO G20 training strategy, the G20 principles for quality apprenticeships as well as the G20 apprenticeships initiative.
- Technology should be used as a complementary tool to improve access to and delivery of quality skills based education, this includes formal, institutional education and life-long learning. New technologies and models for learning such as digital courseware, online and blended education, adaptive learning, data analytics, artificial intelligence and virtual reality offer possibilities to expand access to education and improve outcomes. New models of education, including competency-based credentials and badges, dual-enrollment, apprenticeships and work integrated learning, and innovative partnerships between universities, companies and training providers offer students and workers a wide range of opportunities to learn new skills at school, at home and in the workplace, to advance their careers.
- Educational institutions will need to adapt by ensuring availability of technology within their facilities, and providing more flexible learning concepts that connect people to sources of knowledge more quickly and at an earlier age.
- Also, business needs to be closely involved in the setting and development of curricula to ensure that courses are in line with labor market needs and teachers need continuous training in order to keep up with changes in labor market needs and with technological advances.
- Furthermore, a concerted campaign is needed to change perceptions of vocational education and training to make VET attractive to young people, their parents and mentors, and to adults wishing to change their career or to re-enter the labor market.

[74] Sean Coughlan, *Vocational Education's Global Gap* (BBC News: 2015), accessed April 20, 2017, http://www.bbc.com/news/business-35061496.

[75] Examples are GAN Ambassadors Dr. Ursula Renold - Head of Research Division Education Systems, KOF Swiss Economic Institute, ETH Zurich, and Dagmar Mühle - General Manager, Hilton Munich Airport and Stephan Howeg, CMO of the Adecco Group, Not to Mention the Countless Others who have fulfilled their Career Ambitions. For more Information check GAN Global Apprenticeships Network, *Who*, accessed March 20, 2017, http://www.gan-global.org/who.

Exhibit 7 | High-Quality Apprenticeships have a Key Role to Play to Bring Youth into Employment

While vocational training is not only interesting for youth, the youth unemployment crisis cannot be ignored. The global youth unemployment rate is three times the adult unemployment rate.[1] High-quality internships and apprenticeships are of fundamental importance in order to ease the school-to-work-transition. Quality apprenticeships are an effective tool to help improve work opportunities for young people, both in the short and long term.

However, despite the positive impact of quality apprenticeship systems on the employability of people, the possibilities VET systems offer are not sufficiently appreciated. In order to attract gifted and talented young people, innovative solutions are needed to improve the perception of VET, along with broader awareness of the opportunities to which VET paths can lead. The aim is to make VET a smart and first career choice. To this end, VET should not be seen as dead-end education but as part of a flexible career ladder. Young individuals can start as apprentices and then have the possibility to move on by enrolling at university or at a specialized higher education institution. Greater permeability will improve the reputation of apprenticeships.

Moreover, in many countries vocational training must be better aligned with labor market needs and practical requirements, ensuring that apprentices are employable when they complete their courses. The best way to achieve vocational training systems in line with labor market needs is to involve social partners very closely in the establishment of curricula. Too often, curricula are designed without sufficient involvement of business, employer organizations and social partners, with the result that they do not meet the needs of labor markets. Additionally, in many countries work-based learning systems are inadequate because of inadequate economic framework conditions such as, for instance, high upfront costs. A further problem is that work-based learning systems, such as dual learning and apprenticeship schemes, are in some cases limited to traditional vocations and do not encompass modern professions. However, dual learning and apprenticeship systems have the potential to cover all sectors and to integrate quickly new technical challenges like digitalization. The G20 should therefore make strong efforts to implement them into their education and training systems.

The G20 has committed to the ILO G20 Training Strategy, which was agreed upon and welcomed by the G20 Leaders Summits in Toronto and then Seoul in 2010. The G20 also committed to the G20 Key Elements of Quality Apprenticeships from 2012 as well as to the 2016 G20 Apprenticeships Initiative with the goal of making vocational training programs more effective and efficient. States must now follow-up on their commitments and resolutely implement the various training strategies and initiatives.

ILO, *Global Employment Trends for Youth 2015* (Geneva: ILO, 2015), 6, op. cit.

Exhibit 8 | Best Practice Examples: The JOBLINGE Initiative and CNC Qualification Program

JOBLINGE

Founded in 2008 by Boston Consulting Group and BMW's Eberhard von Kuehnheim Foundation, the objective of JOBLINGE is "to provide disadvantaged, unemployed youth with the opportunity to earn a long term placement in an apprenticeship or job and thus lead a self-determined life".

The program is run in 25 locations in different regions and cities all over Germany. During six months the participants take part in job orientation modules and practical projects, where they can develop social and personal skills while connecting with prospective employers. Internships in partner companies offer to both the candidates and the employers the possibility to get to know each other. During the whole program period the participants are accompanied by voluntary mentors with a high level of experience in their respective occupation.

Heraeus has been a collaboration partner of the JOBLINGE program since 2012. Every year about five to ten participants do a two-week internship in technical or chemical workplaces. After this time they receive feedback about their technical and personal professions. Candidates with positive preconditions who show interest in the respective job area are invited to apply for an apprenticeship. After having passed the general recruiting process successfully they join an apprenticeship group as a regular member. They run through all relevant modules and parts of the vocational training together with the other apprentices and finally pass the examinations. The first JOBLINGE apprentices have already finished their education and are employed in the chemical or precious metal production.

CNC Qualification program

In most companies with internal vocational training departments experienced trainers as well as infrastructure such as machines, workplaces and IT specifically reserved for educational purposes are easily available. These existing structures of a dual education system can also be used for the upskilling and/or reskilling of employees by training people "on the job". Course contents, schedules, IT or hardware can be chosen considering the company's and the employees' needs. Participants can, by developing new skills and new technical competencies, cover a wider range of tasks (job enrichment), take over more or other responsibilities (job enlargement), or move to other positions within the company more easily.

In the course of a company transformation program at Heraeus, some jobs would be no longer needed, while there was a growing demand for workers having specified CNC machining and programming skills. In collaboration with the local technical vocational school, with which the company had a long existing and well developed partnership, a special training course was designed. Considering that most of the participants had not taken part in formalized learning for a longer period of time, the course consisted of basic CNC knowledge as well as self-organized and group learning methods. This first part took place in the facilities of the vocational training department where the necessary software and hardware were already available. The course was supervised by an experienced vocational trainer. For the second part of the program specific software was required, which was available at the vocational school where the classes took place. Following an examination, successful participants received an official certificate as "CNC specialist" by the Chamber of Commerce. Following this, some of the graduates applied internally for new positions. The recruiting process is in progress.

Exhibit 9 | Best Practice Example: Align Education with Jobs

Unfortunately, the gap is growing between what students are taught, and the essential skills and coursework that employers are seeking.

To better prepare students for success, policy-makers need to expand innovative teaching models like P-TECH, which was designed by IBM and now involves over 300 business partners in the United States. The program focuses on in-demand skills training and providing new pathways to promising careers. P-TECH has aspects of the dual vocational education of Germany, but focuses on the needs of high-growth, high-wage industries like information technology. It is time to rethink approaches to education to help close the high-tech skills gap.

IBM P-TECH pioneered the grade 9 to 14 integrated education model in 2011. The P-TECH model uses existing components of the education system, current staff and funding levels, and is open to all students. The model has four core principles:

- Align CTE programs to the needs of the regional, state, and local labor market;
- Support effective and meaningful collaboration between secondary and postsecondary institutions and employers;
- Increase student participation in work-based learning opportunities; and
- Promote the use of industry recognized credentials and other recognized postsecondary credentials.
- Successful career-focused secondary education programs involve a public-private partnership between secondary, post-secondary education, and businesses to ensure an academically rigorous curriculum mapped directly to in-demand job skills. In the most successful models – strongly supported by industry partners – students receive mentorship from corporate volunteers, paid internships, strong academics and practical workplace skills. P-TECH students' on-time graduation rates are more than five times national averages.

IBM's P-TECH creation formula and tools (www.ptech.org) are free and publicly available.

While companies should be involved in defining curricula that are of interest to the labor market, it is the responsibility of states to make the portability and recognition of skills learned on the job a policy priority. This would greatly enable job mobility. Also, periods of unemployment spells should be seen as opportunities to up-skill and re-skill, and for this the role of employment services is critical in advising and supporting those who want to re/upskill.

The B20 has been an active contributor to the G20 work on skills and training and launched an action-driven initiative at the end of 2013 to promote skills for business and jobs for youth, notably through

apprenticeships. The Global Apprenticeships Network (GAN), a Public-Private Partnership (PPP) made up of Multi-national Corporations (MNCs), employers' federations and international organizations, was established to help address the skills mismatch and youth unemployment crises.

Exhibit 10 | What is the Global Apprenticeships Network (GAN)

The GAN as a PPP is made up of MNCs, employers' federations and international organizations. By mid-2016, the GAN's role was highlighted in a Declaration, signed by Employers at the G20 & B20 Labor and Employment Ministers Meeting. A few months later, the GAN coalition united in Washington, D.C. to spark what is now known as the "Global Apprenticeship Movement". At this occasion, the GAN brought together CEOs of GAN Member Companies, International Organizations, business and employer organizations with the U.S. Secretary of Labor, high-level officials from governments, and NGOs. The aim was to construct domestic and global solutions in bringing youth to jobs and skills to companies.

In 2015, the GAN launched its first GAN National Networks (GNNs) in Turkey, Indonesia, Spain and Argentina. Catalyzing a GNN movement, by 2016 the GAN continued to launch GNNs in Colombia and Mexico, set the foundations for the first African GNNs in Malawi and Tanzania, and began discussions with Costa Rica and Kenya for GNNs focusing on promoting apprenticeship as a path to youth employment, targeting vulnerable groups. In 2017, more GNNs will be launched in France and the Netherlands. Several other countries namely, Namibia, South Africa, Sri Lanka, and Côte d'Ivoire have also expressed interest in developing a GNN.

GAN Best Practice Examples: New Models of Apprenticeship Adapted to Various Country and Industry Contexts Have an Increasingly Prominent Role to Play.

The GAN as a leading employer-driven coalition promoting "Skills for Business, Jobs for Youth," shares best practices across countries and industries. One such example is that of GAN Member, Hilton, a supporter of apprenticeship programs, teaching widespread skills at properties across Europe and Asia including, Germany, Austria, Switzerland, Turkey, China and the UK. Combining its expertise in various countries, Hilton launched a project under the umbrella of "Leonardo Da Vinci", an EU program which promotes lifelong learning. The project was announced during the GAN Turkey launch, held at the first G20 employment working group meeting under Turkey's presidency in 2015. Sixty-two hotels in Turkey are taking part in this project to welcome university students in an innovative apprenticeship system developed by Hilton, which combines its experience from models in Turkey, the Netherlands, and the UK.

In 2016, a year when the GAN started to receive increased interest from companies and countries interested in apprenticeship, several GAN companies made pledges as part of a Global Apprenticeship Movement. The pledges range in diversity, reflecting the various sectors and countries the GAN coalition represents. As many GAN companies are based in the United States and given the country's recent investments on the apprenticeship model, their pledges include:

- Adecco North America by 2020 will facilitate 10,000 work-based learning opportunities, with a focus on apprenticeship.

- Hilton will set up the first U.S. apprenticeship system in tourism, starting with an initial 370 apprenticeship positions over the next five years.

- IBM will work with North Carolina IBM to increase the diversity of workers entering and completing the U.S. Registered Apprenticeship program.

As many GAN Members form part of the IT sector, discussion amongst GAN Members are largely focused on staying competitive in the new economy, giving way to "new collar jobs". For the future, positions in technology related sectors will not necessarily require university degrees, and apprenticeship and vocational training will play an increasingly prominent role. One example of a company linking with a local educational institute (community college) to build a skilled labor force is Siemens, who has received much media attention in the United States by exporting a German-style apprenticeship system at its energy plant in Charlotte, North Carolina. Collaborating with other, mostly German companies in the area, the consortium created Apprenticeship 2000, a four-year technical training partnership, between manufacturing companies, local schools and government. The program offers young high school graduates apprenticeships in various technical trades and a specialized degree in Mechatronics Engineering Technology.

Policy Action 2.3: Promote Entrepreneurship

G20 countries should promote entrepreneurship and entrepreneurship education.

Promoting and enabling entrepreneurship is of crucial importance for more dynamic labor markets, not the least because entrepreneurs are job creators. Some reports argue they have been a driving force for employment.[76] OECD studies show that young firms are a primary source of job creation.[77] In the United States, from 1980 to 2005, new firms (those less than five years old) were responsible for close to all nationwide net job growth. According to the Business Dynamics Statistics data from the U.S. Census Bureau, America's net employment growth rate would be negative without the jobs created by new businesses.[78] Entrepreneurs are also wealth creators fueled by technology, globalization and the rise of emerging markets.[79] Therefore, policies must support and not inhibit startups and young firms and assist their growth and survival over the longer term.

The importance of entrepreneurship and entrepreneurship education must further rise on the political agenda. Business has warmly welcomed the G20 Entrepreneurship action plan, which was adopted under the Chinese G20 Presidency. This now needs to be determinedly implemented at a national level and followed-up at the G20 level. The G20 Entrepreneurship action plan must not be a nine-day wonder. Governments must focus on regulation and tax policies that affect start-ups and business growth; promoting clusters to create synergies between universities, research and development centers, start-ups and public administration; as well as access to simplified information.

Special attention needs to be paid to facilitating women's entrepreneurship and women as business owners (noting that legal barriers facing women as business owners were addressed under recommendation 1). OECD data from 2012 tells us that across the EU countries; only 25 percent of entrepreneurs with employees are women. According to the IFC, 70 percent of women led SMEs in developing countries are underfunded.[80] In the U.S. only 2.7 percent of the companies receiving venture capital funding (2011 – 2013) had a woman CEO.[81]

As reported in the second BIAC Deloitte report to the OECD gender project, *Putting ALL our minds to work: Women and Entrepreneurship*, many of the issues confronting women entrepreneurs, as well as the qualities and skills important to their success (management ability, financial literacy, creativity, dynamism, self-confidence and an appetite for risk), are the same as those that pertain to all businesses and business proprietors, largely centering on access to finance and markets, as well as a conducive regulatory climate for doing business. But many characteristics of women entrepreneurs and of their enterprises differ from those of men, and therefore demand separate and specific policy interventions. For example, private equity financing entails extensive use of intermediaries. Women tend not to be strongly entrenched within the relevant investor networks. Lacking exposure to the world of private equity, women tend to structure their projects differently from men, which may itself affect their ability to attract capital. Men and women also have different styles in "pitching" for funds. Women too often

[76] EY Global Job Creation Survey 2016, *Does Disruption Drive Job Creation?* (2016), 1-20, accessed March 20, 2017, https://betterworkingworld.ey.com/.resources/eybbww-templating-module/resources/html5/job_creation/pdf/EY_Global_Job_Creation_Survey_2016.pdf.
[77] OECD, *Young SMEs Growth and Job Creation* (Paris: 2014), 1-9, accessed March 20, 2017, https://www.oecd.org/sti/young-SME-growth-and-job-creation.pdf.
[78] Zach Cutler, *Entrepreneurs are Job Creators* (The Huffington Post: 2012), accessed March 20, 2017, http://www.huffingtonpost.com/zach-cutler/entrepreneurs-are-job-creators_b_1861665.html.
[79] Andrew Bounds and Daniel Schäfer, *Wealth Creation by Entrepreneurs Outpaces Inheritances* (The Financial Time: 2013), accessed March 20, 2017, https://www.ft.com/content/7712124a-d4f7-11e2-b4d7-00144feab7de.
[80] IFC, *Women Entrepreneurs Are Essential for Private Sector Development in Emerging Markets* (2017), http://www.ifc.org/wps/wcm/connect/179d5b804b3a16138f35ff4149c6fa94/Entrepreneurship+Offering+Brochure+Feb2017.pdf?MOD=AJPERES.
[81] Candida Brush and al., *Diana Report: Women Entrepreneurs 2014: Bridging the Gender Gap in Venture Capital - Executive Summary*, (Babson College: 2014), accessed March 20, 2017, http://www.babson.edu/news-events/babson-news/Pages/140930-venture-capital-funding-women-entrepreneurs-study.aspx.

lack the knowledge and confidence to ask for large enough sums and to negotiate well on terms.

Another special focus should be youth entrepreneurship. Young entrepreneurs not only bring vibrancy and innovation to world economies, they create jobs and typically hire other youth. According to a survey of young entrepreneurs, entrepreneurs are leading job creation globally, with 47 percent of entrepreneurs expecting to increase their total global workforce this year.[82] Youth entrepreneurship is also seen as a means to help disadvantaged people break from social exclusion and in some markets, offers indigenous solutions to economic disadvantage.[83] For example, if 10 per cent of NEETs were integrated more fully in the EU labor market, estimates suggest that this could save EU taxpayers €10 billion per annum.[84]

Finally, SMEs have the biggest employment potential, but they are essentially left on their own to evolve primarily with a domestic narrow market niche. Efforts are needed to better help connect and unleash SME cross border trade and transaction opportunities and enhance the scaling of markets, enabling them to compete on a global scale and therefore diminish the skills mismatch. Currently, it is very complicated for SMEs to look for the right workers in an international market, as many face challenges in financing this search.

Also, financing seems to be one of the biggest inhibitors to the growth of entrepreneurs and SMEs. Over one quarter of all business discontinuance in Africa and Southeast Asia is due to a lack of finance.[85] An early stage finance mechanism that provides sufficient funding for new companies with innovative ideas and growth potential, but an unproven track record, will also help to promote entrepreneurship and innovation.

- The G20 should support B20 actions regarding the G20 SMART Innovation Initiative, including: a regular convening of the G20 SMART Innovation Forum, the establishment of G20 SMART industrial park to boost “G20 Young Entrepreneur Partnership”, and the set-up of G20 SMART Innovation Fund. Furthermore, the G20 countries should follow up annually on their Action Entrepreneurship Plan established in 2016.

Also, G20 governments should develop and implement ambitious plans that provide growth strategies for (young) entrepreneurs including innovation zones/hubs, financing, training etc. This includes:

- **Reduce administrative and regulatory barriers:** Set up support systems for start-ups through easily accessible and timely information and advice, and make the registration of companies as easy as possible. Specifically for women, regulatory and legal frameworks should not raise barriers; rather, employment, education, taxation and finance policies should foster women’s business initiatives. Social policies including flex-time, parental leave and access to affordable child care are essential for many women entrepreneurs. On an international level, G20 members should look at ways to link their SME's across borders to increase global trade opportunities for these entities which are predominantly domestic driven.

  In addition, G20 governments should promote entrepreneurship as a way to boost self-employment by reducing administrative burdens related to the creation of business, and by promoting a diversity of business models, including cooperatives and other social economy

[82] Marina Pinelli, *EY Global Job Creation and Youth Entrepreneurship Survey 2015*, (EYGM Limited: 2015), accessed March 20, 2017, http://blog.iese.edu/bizknowledgewatch/2015/ey-global-job-creation-and-youth-entrepreneurship-survey-2015/.
[83] Dirk De Clercq and Benson Honig, *Entrepreneurship as an Integrating Mechanism for Disadvantaged Persons* (Entrepreneurship & Regional Development: 2011), accessed March 20, 2017, http://www.tandfonline.com/doi/abs/10.1080/08985626.2011.580164.
[84] Francis Green, *Youth Entrepreneurship* (OECD, France: 2013), accessed March 20, 2017, https://www.oecd.org/cfe/leed/youth_bp_finalt.pdf.
[85] Donna Kelley, Slavica Singer and Mike Herrington, *Global Entrepreneurship Monitor: Global Report 15/16* (GEM: 2016), http://gemconsortium.org/report/49480.

enterprises. These allow people to mutualize risks, offering a good alternative for women, youth and other disadvantaged groups to access entrepreneurship.

- **Reduce financial barriers:** Refrain as much as possible from excessive taxation on new small businesses, in order to not discourage future entrepreneurs from the outset. Also, enable greater access to a variety of funding sources for SMEs, such as temporary tax incentives for early stage investors, start-up loans with favorable interest rates and/or a repayment-free year, and guarantees in order to minimize the default risk for lenders. This is particularly important for young people looking to start businesses, who are highly innovative and launch businesses with higher employment growth rates than other groups[86], but face more barriers than their adult counterparts in accessing traditional financing from banks.
- **Link entrepreneurship to education:** Embed entrepreneurship education into school, VET, and university curricula. To increase women entrepreneurship, long-term education initiatives to address cultural stereotypes should be supported. Besides the regular education pathways, G20 governments should facilitate access to mentorship programs to drive innovation and unlock the entrepreneurial potential of their people. Access to mentorship is proven to increase the likelihood of an entrepreneur's success, particularly for underrepresented groups like women and youth. 88 percent of entrepreneurs with mentors survive in business, compared to a 50 percent failure rate for those without a mentor or champion.[87]

Exhibit 11 | Best Practice Example: Support Young Entrepreneurs in Canada

Futurpreneur Canada is the only national non-profit organization that gives aspiring young entrepreneurs anywhere in Canada the time, expertise and resources they need.

Futurpreneur Canada's flagship Start-up program provides young entrepreneurs with up to $45,000 in collateral-free, character-based financing, an expert business mentor for up to two years, and resources to help them plan, manage and grow their businesses. It spends an average of 15 – 20 hours with individual entrepreneurs to develop their business plans and combines every loan with industry-leading mentorship from the network of nearly 3,000 mentors across the country.

To date, the Start-up program alone has helped 9,380 young women and men launch 7,320 new businesses, creating an estimated 35,000 jobs and $219 million in tax revenue.

The model for success makes a measurable difference for the entrepreneurs served, as indicated in their superior performance compared to other start-ups: Futurpreneurs have a 50 to 60 per cent five-year survival rate (the Canadian average for new businesses is roughly 50 per cent). And these are young entrepreneurs without collateral who would otherwise experience difficulty accessing traditional financing. Furthermore, up to 83 per cent of the entrepreneurs repay their loans, demonstrating that, whatever has happened to their business, they have the economic wherewithal to repay their loans.

[86] OECD, European Commission, *Policy Brief on Youth Entrepreneurship* (Paris: 2012), 9, https://www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf.
[87] Status of Women Canada, *Benefits of Championing and Mentoring* (Canada: Status of Women Canada: 2015), http://www.swc-cfc.gc.ca/initiatives/swo-mesr/benefits-avantages-en.html.

Recommendation 3: Create a Global Level Playing Field

G20 members should create a global level playing field and promote fair competition.

Policy Actions		
3.1	**G20 countries should ensure better implementation and enforcement of legislation at the national level. It is the duty of the State to protect people in its territory against human rights infringements and it is the responsibility of companies to comply with national laws and respect human rights.** • G20 governments should acknowledge that many companies are already very active with regard to risk prevention and mitigation in their global supply chains through private compliance efforts including auditing, supplier capacity building and even supplier financing. • Governments should have clear laws which are duly implemented and enforced, as they provide investors with the confidence to invest in a country, thereby creating great opportunities for both countries and companies: better living standards, higher productivity, the deployment of new technologies, increased employment opportunities, and more diversified and resilient economies.	
Owner: G20, G20 members		**Timing:** Status update by 2018 G20 leaders meeting in Argentina
3.2	**G20 should build on the German G7 Presidency as well as the ILO ILC Discussion on Decent Work in global supply chains and strengthen existing initiatives on promoting sustainable supply chains.** The G20 should acknowledge and support this comprehensive set of initiatives and activities and avoid to duplicate and jeopardize their success through new undertakings, which might be less complementary but rather competitive. This includes to: • fully respect the agreed compromise and offer to support the roll-out and implementation of the ILO Action Plan on Decent Work in global supply chains. • support the ILO to establish a one-stop-shop for companies with country specific information on Labor and OSH regulation, decent work risks, etc. • endorse and promote the roll-out of the SCORE program.	
Owner: G20, G20 members		**Timing:** Status update by 2018 G20 leaders meeting in Argentina
3.3	**The G20 should promote the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises (MNE) in order to strengthen responsible business conduct and shape a global level playing field.** • Governments should develop and implement National Action Plans (NAP) and thereby use the guidance provided by the UN Working Group on Business and Human Rights. They should also coordinate efforts to implement these NAPs and facilitate mutual learning. • All G20 governments should adopt the OECD MNE Guidelines and endeavor to attract additional non-OECD countries to the OCED Guidelines	
Owner: G20, G20 members		**Timing:** Status update by 2018 G20 leaders meeting in Argentina

Context

Participation in cross-border trade has created jobs for millions of people, which would not otherwise have existed in these economies. But more than just a job, the preponderance of academic research indicates that these are better jobs: across a variety of developing countries, supply-chain connected firms exhibit better working conditions in comparison to alternative, domestic firms which are often in the informal economy.[88]

The positive impact of trade on job creation is particularly important in view of the demographic trends in many producing countries, where millions of young people join the cohort of the working-age population every year and are desperately looking for opportunities to enter the labor market. Participation in cross-border supply chains lifts their chances of getting a foothold in the world of formal work and their ability to do well for themselves and their families and to contribute to the broader society and economy around them. It is for this reason that cross-border supply chains are called "ladders of development".[89]

Indeed, the disaggregation of production into separate stages across supply chains allows firms not only to find their place on the ladder, but also to move up the rungs as their productive capabilities improve. This tends to happen as connection to global supply chains facilitates the transfer of knowledge from buyers to suppliers, promoting new technologies in production processes and thereby enhancing productivity and competitiveness among firms within countries and for whole sectors of economies vis-à-vis competitors from other countries.

There are, of course, decent work challenges in some global cross-border supply chains. These challenges, however, in the vast majority of cases are not caused by cross-border trade, but mirror the decent work challenges in national economies generally. The B20 fundamentally rejects any violation of the 1998 Declaration on Fundamental Principles and Rights at Work. Forced and child labor, discrimination and the denial of freedom of association and collective bargaining are severe forms of human rights violation, with grave impact not only for the individuals, but also their families, which cannot escape poverty, and societies at large which are hampered in their development. They are also a form of unfair competition.

Companies are very engaged in working with their suppliers to mitigate the risks of violations in their supply chains. There are numerous initiatives, alliances, and measures, which companies use to meet their responsibility within the global supply chains, such as

- International Council of Mining and Metals (ICMM), which released guidance on integrating human rights due diligence into corporate risk management in 2012 and established an Advisory Group on Stakeholder and Due Diligence in the Extractive Sector in 2013.
- International Petroleum Industry Environmental Conservation Association (IPIECA) has a robust UNGPs program and launched a guidance document on the "*Human rights due diligence process: a practical guide to implementation for oil and gas companies*" in 2013, as well as a manual for implementing operational-level grievance mechanisms and designing corporate frameworks in 2015. It is used by dozens of companies outside the extractives industry.
- The Electronic Industry Citizenship Coalition (EICC) has included due diligence and mitigation in its code of conduct.

[88] Albert Park, Gaurav Nayyar, and Patrick Low, *Supply Chain Perspectives and Issues: A Literature Review* (WTO, Fung Global Institute, Geneva, Hong Kong: 2013), accessed March 20, 2017, 54, https://www.wto.org/english/res_e/booksp_e/aid4tradesupplychain13_e.pdf.
[89] Alessandro Nicita, Victor Ognivtsev, and Miho Shirotori, *Global Supply Chains: Trade and Economic Policies for Developing Countries* (UNCTAD, New York, Geneva: 2013), http://unctad.org/en/PublicationsLibrary/itcdtab56_en.pdf.

- The Business Social Compliance Initiative (BSCI) embedded human rights due diligence in the BSCI System Manual.
- Business for Social Responsibility launched guidance on Stakeholder Engagement in Human Rights Due Diligence in 2014.
- The UN Global Compact provides webinars, guidance, and best-practice sharing on human rights dilemmas and the integration of Human Rights aspects in due diligence processes.
- The Global Social Compliance Program, the Global Network Initiative and many other initiatives have focused intensively on human rights due diligence and assisted their member companies in integrating human rights due diligence into management human rights due diligence systems
- The Consumer Goods Forum announced an ambitious resolution on the eradication of forced labor, which is based on the following three principles: Every worker should have freedom of movement, no worker should pay for a job and no worker should be indebted or coerced to work.

However, Fundamental Principles, Rights at Work and decent work must apply to all workers. We must avoid creating a two-tiered compliance system, where people working for exporters are protected or have higher standards but the rest get lesser or diluted protections.

The only way to ensure that all workers are equally protected is to develop strong national institutions that can implement and enforce laws covering all companies and workers within its borders, regardless of whether they participate in global supply chains or not.

At the International Labor Conference in June 2016 the ILO had an intense debate on Decent Work in global supply chains, which was followed-up by an ILO action plan to promote Decent Work in global supply chains. According to the agreed compromise global supply chains are very complex, diverse and have become more and more fragmented. New technological innovations could contribute to facilitating monitoring and increase the transparency of global supply chains. Yet the real possibilities for companies to influence the supply chain are highly divergent and depend to a great degree on the number of suppliers, the structure and complexity of the supply chain as well as the market position of the company. Furthermore, large companies have many suppliers – often several thousands. This growing complexity is also recognized by the leading responsible business conduct frameworks, such as the UN Guiding Principles and the OECD MNE Guidelines.

Considering this complexity, we must be aware that there is no “one-size-fits-all” solution. Production is taking place in different countries, which each have their own laws and regulations. Therefore, any action taken related to supply chains should be in line with the respective producing country. The aforementioned development of strong national institutions can only be successful if the national context is taken into consideration.

Policy Action 3.1: Implement and Enforce National Legislation

G20 countries should ensure better implementation and enforcement of legislation at the national level. It is the duty of the State to protect people in its territory against human rights infringements and it is the responsibility of companies to comply with national laws and respect human rights.

Business enterprises have a profound impact on society as they help to increase access to work thereby contributing to job creation while influencing the rights of workers, consumers and communities wherever they operate. The UN Guiding Principles on Business and Human Rights under the UN Framework (Protect, Respect and Remedy) recognizes the separate roles of the government and the enterprise in respecting human rights. Governments have the duty under international human rights law to protect their people from human rights abuses. This duty means that governments should have effective laws and regulations in place to prevent and address business-related human rights abuses and ensure access to effective remedy for those whose rights have been abused. In doing so, governments should not differentiate between companies producing for the global market and those producing exclusively for the domestic market. Decent work challenges must be addressed in all companies.

It is the role of the governments to enact and implement national legislation that can prevent business-related human rights abuses and this task cannot be delegated to companies. Businesses have the responsibility to comply with national law and respect human rights wherever they operate. However, introducing additional legal obligations with a transnational reach specifically to address global supply chains could have unintended consequences on both inclusive economic growth, as well as the ability of companies to work together with other stakeholders in order to gradually improve conditions. Through business engagement, companies can supplement – but never substitute for – policy-makers' efforts through regulation and enforcement to improve social development and social progress. Indeed, the UN Guiding Principles and the OECD MNE Guidelines call on companies to work on risk prevention and mitigation in an interactive fashion through engagement with their business partners. An overly-restrictive and punitive approach to global supply chains could discourage such engagement, limit the flexibility of companies to respond to issues, and even dampen investment flows to emerging and least developed economies. Rather, the focus of regulatory efforts should be on supporting preventive measures.

- G20 governments should acknowledge that many companies are already very active with regard to risk prevention and mitigation in their global supply chains through private compliance efforts including auditing, supplier capacity building and even supplier financing. Moreover, because one company seldom has sufficient leverage to affect change throughout its entire supply chain on its own. Companies have for decades spearheaded numerous industry and multi-stakeholder initiatives, alliances, and standards, which companies use to meet their responsibility to respect human rights within their supply chains. In addition, the number of companies which integrate corporate social responsibility (CSR) and sustainability strategies in their core business is growing constantly, as is the number of those developing their own sustainability strategies.
- Governments should have clear laws which are duly implemented and enforced, as they provide investors with the confidence to invest in a country, thereby creating great opportunities for both countries and companies: better living standards, higher productivity, the deployment of new technologies, increased employment opportunities, and more diversified and resilient economies. For instance, having a clear rule of law has been attributed as a key reason as to

why Singapore is attractive to major investors[90].

Policy Action 3.2: Build on Existing Initiatives

G20 should build on the German G7 Presidency as well as the ILO ILC Discussion on Decent Work in global supply chains and strengthen existing initiatives on promoting sustainable Supply Chains.

Global supply chains are not new on the political agenda. The German G7 Presidency in 2015 developed a comprehensive set of initiatives and actions on sustainable supply chains, such as the Vision Zero Fund[91]. The Vision Zero Fund aims to bring about enhanced occupational safety and health in producing countries and wants to raise general awareness for this issue.

Moreover, according to the agreed compromise following the intense debate on Decent Work in global supply chains at the ILO 2016 International Labor Conference[92], global supply chains are very complex, diverse and have become more and more fragmented. The real possibilities for companies to influence the supply chain are highly divergent and depend to a great degree, on the number of suppliers, the structure and complexity of the supply chain as well as the market position of the company, as recognized by the leading responsible business conduct frameworks, such as the UN Guiding Principles and the OECD MNE Guidelines. Furthermore, large companies have many suppliers – often several thousands. What is important is to provide support and training to businesses within the supply chain so that they are capable of implementing environmental, social and human rights standards adequately.

One of the ILO projects to improve working conditions and productivity in producing countries is the Sustaining Competitive and Responsible Enterprises program, SCORE. It is a practical training and in-factory consulting program that helps SMEs to participate in global supply chains. SCORE addresses potential contributing factors to human rights violations and decent work deficits such as lack of information and knowledge, limited management capacity and harmful business practices.

The G20 should acknowledge and support this comprehensive set of initiatives and activities and avoid duplication of efforts. New undertakings may also jeopardize compliance with existing measures, in particular if they are less complementary but rather competitive. This includes to:

- fully respect the agreed compromise and offer to support the roll-out and implementation of the ILO Action Plan on Decent Work in global supply chains.
- support the ILO to establish a one-stop-shop for companies with country specific information on Labor and OSH regulation, decent work risks, etc.
- endorse and promote the roll-out of the SCORE program.

Exhibit 12 | Best Practice Example: SCORE

The only ILO program to improve working conditions and productivity in SMEs of producing countries is SCORE. SCORE is a practical training and in-factory consulting program that helps SMEs to participate in global supply chains. It addresses potential contributing factors to human rights violations and decent work deficits such as lack of information and knowledge, limited management capacity, poor organizational health and safety, and harmful business practices.

[90] Michael Ewing-Chow, Junianto James Losari, and Melania Vilarasau Slade, *The Facilitation of Trade by the Rule of Law: The Cases of Singapore and ASEAN* (Geneva: WTO, 2014), https://www.wto.org/english/res_e/booksp_e/cmark_chap9_e.pdf.
[91] ILO, *Vision Zero Fund* (Geneva: 2016), http://www.ilo.org/safework/projects/WCMS_517539/lang--en/index.htm.
[92] This Debate was followed-up by an ILO Action Plan to promote Decent Work in Global Supply Chains.

Policy Action 3.3: Promote the UN Guiding Principles and the OECD MNE Guidelines

The G20 should promote the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises in order to strengthen responsible business conduct and shape a global level playing field.

The UN Guiding Principles on Business and Human rights are the authoritative UN framework on business and human rights, which spells out clear duties of governments and responsibility for companies. The UN Guiding Principles were unanimously endorsed by the UN Human Rights Council in June 2011 and enjoy global support. The UN Working Group on Business and Human Rights as well as other international organizations and initiatives have called on governments to implement the UN Guiding Principles and adopt National Action Plans (NAPs) on business and human rights. However, until today, there are only a limited number of governments which have adopted a NAP.

- Governments should develop and implement National Action Plans and thereby use the guidance provided by the UN Working Group on Business and Human Rights. They should also coordinate efforts to implement these NAPs and facilitate mutual learning.

The OECD MNE Guidelines are the most comprehensive instrument for promoting responsible business conduct. They provide voluntary principles and standards, covering all major areas of business ethics: human rights, information disclosure, employment and labor, environment, anti-corruption, consumer interests, science and technology, competition and taxation. The MNE Guidelines are deliberately not legally enforceable as they are intended to stimulate responsible behavior and problem-solving through mediated dispute resolution - not to trigger protracted judicial disputes. This is provided by the National Contact Point system, a mediation platform designed to help parties resolve issues concerning the implementation of the MNE Guidelines by a company in a specific case. At the same time, the MNE Guidelines are not only a demand on business. They also contribute to providing a global level playing field, nationally and internationally, by setting out the standards of responsible behavior that are expected from all MNEs.[93]

- In a globalized world the OECD MNE Guidelines play a key role in shaping a global level playing field by serving as a system of global governance for multinational enterprises.[94] The practical approach strengthens responsible conduct by companies. All G20 governments should adopt the OECD MNE Guidelines. Furthermore, they should endeavor to attract additional non-OECD countries to the OCED Guidelines.

[93] BIAC, *Responsible Business Conduct: The OECD Guidelines for Multinational Enterprises* (Paris: BIAC, 2015), http://biac.org/wp-content/uploads/2015/06/FIN-15-06-GUIDELINES-BROCHURE.pdf.
[94] Kenneth A. Reinert, Oda T. Reinert, and Gelaye Debebe, *The new OECD Guidelines for Multinational Enterprises: better but not enough* (Development in Practice, Vol. 26: 2016), http://www.tandfonline.com/doi/abs/10.1080/09614524.2016.1195795?journalCode=cdip20.

Annex

Acronyms

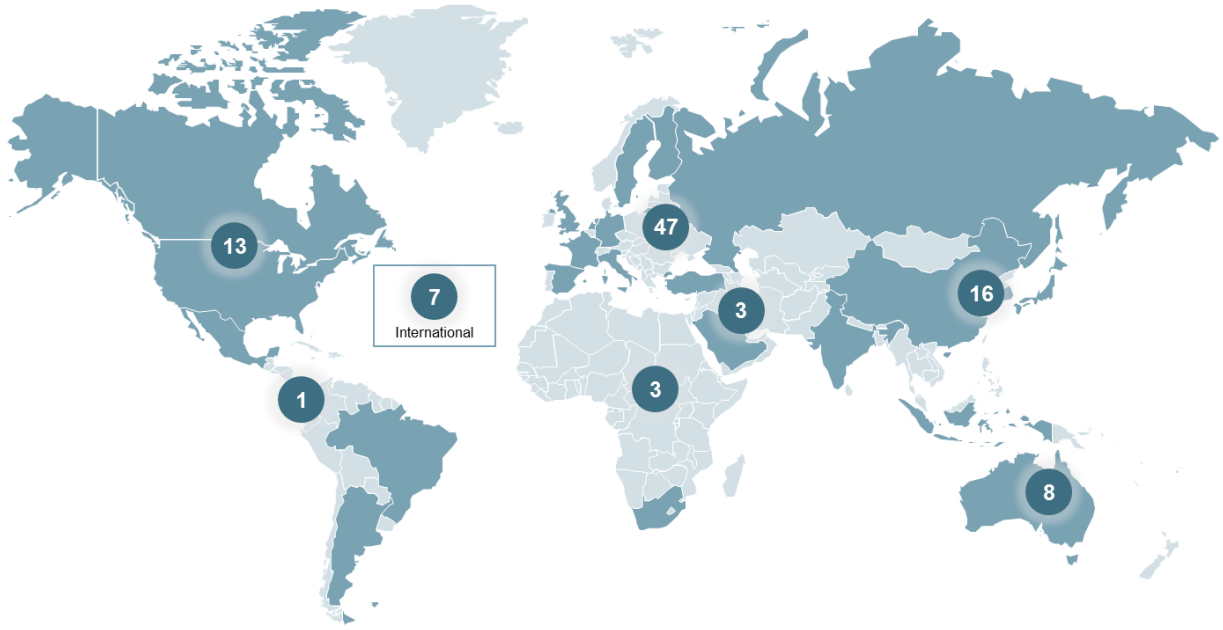
BIAC	Business and Industry Advisory Committee to the OECD
BSCI	Business Social Compliance Initiative
CSR	Corporate Social Responsibility
FLFPR	Female labor force participation
GAN	Global Apprenticeships Network
GCSE	General Certificate of Secondary Education (UK)
GDP	Gross Domestic Product
GFMD	Global Forum on Migration and Development
GNN	GAN National Network
ICMM	International Council of Mining and Metals
IFC	International Finance Corporation
ILC	International Labor Conference
ILO	International Labor Organization
IOE	International Organization of Employers
IPIECA	International Petroleum Industry Environmental Conservation Association
ITUC	International Trade Union Confederation
MNCs	Multinational Corporations
MNE	Multinational Enterprises
NAPs	National Action Plans
NEET	Neither in Education, nor in Employment or Training
OECD	Organisation for Economic Co-operation and Development
OSH	Occupational Safety and Health
PPP	Public Private Partnership
SCORE	Sustaining Competitive and Responsible Enterprises Program
SDGs	Sustainable Development Goals
SMEs	Small and medium-sized enterprises
STEM	Science, Technology, Engineering and Mathematics
TUAC	Trade Union Advisory Committee to the OECD
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGP	United Nations Guiding Principles
VET	Vocational Education and Training

Schedule of TFEE exchange

#	Date	Location	Theme
1	October 18, 2016	Brussels	Brainstorming meeting to identify employment issues
2	November 2, 2016	Geneva	Recommendation development
3	December 1-2, 2016	Berlin	Recommendation development
4	February 2, 2017	Teleconference	Refinement of recommendations and action
5	March 14, 2017	Geneva	Prioritization and refinement of 2nd draft
6	March 22, 2017	Paris	Finalization of document
7	May 2-3, 2017	Berlin	B20 Summit

Distribution of Members

Country	#	Country	#	Country	#	Country	#
Argentina	1	Germany	20	Netherlands	1	Turkey	8
Australia	7	India	6	Poland	2	United Kingdom	3
Belgium	1	Italy	1	Russia	4	United States	8
Cameroun	1	Japan	1	Saudi Arabia	3	International	7
Canada	4	Korea	2	Singapore	1	Other	2
China	6	Mexico	1	South Africa	2	Total	98
France	4	New Zealand	1	Spain	1		



Taskforce Members

Name	Company/Organization	Country	Deputy
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Co-Chairs			
Daniel Funes de Rioja	International Organisation of Employers	International	Victoria Giulietti
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Erol Kiresepi	Santa Farma Pharmaceuticals	Turkey	
Mthunzi Mdwaba	Unisectoral-Business Unity South Africa (BUSA)	South Africa	
Yogendra Modi	Great Eastern Energy Corporation Ltd.	India	
Kathryn Porter	Hilton Worldwide	UK	
Peter Robinson	USCIB	US	
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Paul Bradley	Caprica International	Singapore	
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Giorgiana Karenina Martinez Garnelo y Calvo	JóvenesxMéxico®	Mexico	
Antonio Capaldo	Antonio Capaldo Spa	Italy	
Ezgi Çelik	Turkish Industry & Business Association	Turkey	
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Ebru Dicle	TUSIAD (Turkish Industry and Business Association)	Turkey	
Victor Dosoretz	Argentina Chamber of Commerce and Services	Argentina	
Gisela Eickhoff	Harting AG & Co. KG	Germany	
Charles Fadel	Center for Curriculum Redesign	US	
Heide Franken	Randstad Holding	Germany	Carlotta Köster-Brons
Anne Göbel	HDE - Handelsverband Deutschland	Germany	
Shea Gopaul	Global Apprenticeships Network	Switzerland	Kristin Keveloh

Rodrigo Gouveia	International Co-operative Alliance	International	
Mark Clifford Grey	Global Coalition for Efficient Logistics (GCEL)	Australia	Alan John Wilkins
Claudia Große-Leege	Verband deutscher Unternehmerinnen e.V.	Germany	
Neha Gupta	Confederation of Indian Industry (CII)	India	
Kumara Gurudnv	Indian School of Business	India	
Ismail Haznedar	Jain Global Angel Investing Network	US	
Renate Hornung-Draus	Confederation of German Employers (BDA)	Germany	
Chang HwiLEE	CreBiz Factory	Korea	
Mikhail Iakobachvili	Orion Heritage Co.Ltd	Russia	
Lei Ing	Baidu	China	
Aisha Izzet	Takamol	Saudi Arabia	
Li Jiang	YINTELLIGENCE Culture Communications (Beijing) Co., Ltd.	China	
Shadi Khawandanah	Special Direction I International Chamber Of Commerce Of Saudi Arabia	Saudi Arabia	
Thomas Koenen	Econsense	Germany	Karsten Schröder
Taeshin Kwon	Federation of Korean Industries	Korea	
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Thomas Mackall	Sodexo	France	
Hoda Mansour	A'amal Group KSA	Saudi Arabia	
Walery Marcinowicz	HayGroup	Poland	
Khathutshelo Mashau	Nunnovation Africa Foundation	South Africa	
Marina Moskvina	Russian Union of Industrialists and Entrepreneurs	Russia	Natallia Hoffmann
Lutz Mühl	Wirtschaft, Sozialpolitik, Europa, Bundesarbeitgeberverband Chemie e. V.	Germany	
Satoshi Mukuta	Keidanren (Japan Business Federation)	Japan	
Annemarie Muntz	Randstad Holding	Netherlands	Sonja Van Lieshout
Jens Nagel	Außenhandelsvereinigung des Deutschen Einzelhandels	Germany	
Paul Oscar Mbom Ngue	AVD (Alternative - Volontariat - Développement)	Cameroun	
Paul Noll	Confederation of German Employers (BDA)	Germany	
Christoph Obladen	Heraeus Holding GmbH	Germany	
Philip O'Reilly	Iron Duke Partners Director and Chair BIAC	New Zealand	
Mario Pennisi	Life Sciences Queensland Ltd (LSQ)	Australia	
Janusz Pietkewicz	Employers of Poland	Poland	Andrzej Malinowski
Garance Pineau	MEDEF	France	
Doh Victorine Piotmensah	Piot Foundation	UK	
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Nicole Primmer	BIAC	International	
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Hansjoerg Schmidt-Trenz	Hamburg Chamber of Commerce (HK Hamburg)	Germany	
Juliane Schröder-Sercu	Gesamtverband der deutschen Textil- und Modeindustrie	Germany	
Victor Sedov	Center for Entrepreneurship, LLC	Russia	
Lynn Shotwell	Society for Human Resource Management/CFGI	US	
Andy Song	eNotus International	Australia	Nigel Arthur
Bernard Spitz	MEDEF	France	Helene Bejui
Michael Stiefel	Confederation of German Employers (BDA)	Germany	
Ernst Stutz	Philip Morris International	Germany	
Vijay Thadani	NIIT Limited	India	
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