CREATING VALUE THROUGH GLOBAL YOUTH ENGAGEMENT

A Smart Investment for the Infrastructure and Natural Resource Industries







Acknowledgements

This publication was prepared by Kim R. McCormick (IYF), Gillian Davidson (independent consultant), Veronica Nyhan Jones (IFC), Toniqua Hay (IFC), and Peter Shiras (IYF). The report brings together IFC's decades of experience strengthening the private sector in developing countries and IYF's more than 25 years working to prioritize and advance youth well-being and economic opportunities worldwide.

Thank you to the interviewees, contributors, and peer reviewers who have supported this research:

Joel Adriance (IYF); Milagros Algarin Miranda (student); Leslie Arnold (BHP Petroleum); Maria Arsenova (IFC); Aissata Beauvogui (Guinea Alumina Corporation); Michael Max Buehler (World Economic Forum); Jeffrey Carbeck (Deloitte); Oscar Contreras-Villaroel (Ciencia Joven); Mpho Dbada (Planning, Monitoring, and Evaluation Department of South Africa); Kerstin Forsberg (Planeta Océano); Garfinkel + Associates; Alejandro Hermoza Maravi (Buenaventura); Matthew Hobson (IYF); Matt Jeschke (Rio Tinto); Nadim Kara (Stratos Inc.); Jim Keravala (OFFWORLD); Heather Kulp (Niger Delta Partnership Initiative Foundation); Matthias K. Lundberg (World Bank); Reg Manhas (Kosmos Energy); Lydia Montalti (Core Advice); Naadiya Moosajee (WomEng); Walid Nasr (IFC); Stuart Orr (World Wildlife Fund); Kiely Pena Romero (student); Olivier Pouliquen (SETRAG); Pierre Pozzo di Borgo (IFC); Katie Raymond (IYF); Miguel Angel Rebolledo Dellepiane (IFC); William Reese (IYF); Tania Risco Ruiz (IFC); Jon Samuel (Anglo American); Christian Spano (World Economic Forum); Lisa Wee (Chevron); Peter Woicke (IYF Board of Directors); Jennifer Zammuto (Caterpillar Foundation); Alejandro Zapata Arango (Portafolio Verde)

Lynde Pratt (IYF) designed this publication, and Gill McCallion (IYF) created the graphics.

Photo Credits

- © Axel Fassio: cover page; pp. 4, 14;
- © WomEng: pp. 6, 17, 36;
- © Stephan Gladieu/World Bank: pp. 10, 39;
- © John Hogg/World Bank: p. 20;
- © Grant Ellis/World Bank: p. 24;
- © Ignacio Mendoza: p. 26;
- © BHP/United Way Houston: p. 31;
- © Charlotte Kesl/World Bank: p. 32;
- © Ankush Minda/stock image: p. 33;
- © Gerhard Jorén/World Bank: p. 34;
- © Dana Smillie/World Bank: p. 37;
- © Maksim Lobikov: p. 41;
- © Kosmos Innovation Center: p. 42;
- © Nafise Motlag/World Bank: p. 45;
- © Niger Delta Partnership Initiative: p. 46;
- © IFC-Canada: p. 50

Production of this publication was made possible through funding provided by the Government of Canada.



CREATING VALUE THROUGH GLOBAL YOUTH ENGAGEMENT

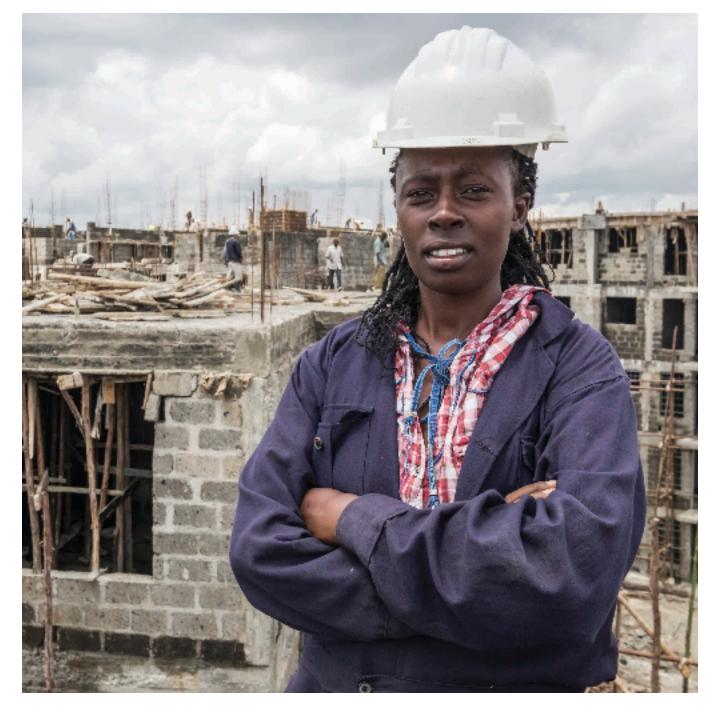
A Smart Investment for the Infrastructure and Natural Resource Industries

TABLE OF CONTENTS

FOREWORD	4
EXECUTIVE SUMMARY	6
KEY INDUSTRY & YOUTH CHALLENGES	10
Voices of youth: Young people's overall perceptions of infrastructure and natural resource industries	
Talent and the workforce of the future	
What do young adults want from work?	
Innovation and competition in an era of rapid change	
Building stable, resilient communities and economies	
Where are the world's young people?	
Increasing pressure for environmental, social, and corporate governance	19
YOUTH ENGAGEMENT OFFERS SOLUTIONS	20
Cultivating young talent	21
Youth, technology, and innovation	_22
The value of diversity for innovation and the bottom line	.22
Youth optimism as opportunity	22
Tapping young leaders solving pressing global issues	23
Young people advancing the SDGs most relevant to the infrastructure and natural resource industries	25

ACTION PLAN	26
Foundational Activities: Reaching Youth with Intention	27
Know the target audience	27
Develop a youth-focused strategy	27
Case Study: Learning Exploration Aspiration Preparation Success (LEAPS)—BHP and IYF	29
Develop youth-centric communications plans	31
Targeted Youth Investments: Maximizing Returns	32
Support livelihoods—direct, indirect, and complimentary	32
Case Study: Trans-Gabon railway on track to engage local youth	33
Case Study: Developing women engineers in Africa and beyond	36
Advance talent and skills development	38
Champion entrepreneurs and value chain development	42
Case Study: Kosmos Innovation Center	43
Build strong partnerships and collaborations	44
Strategies for effective nonprofit partnerships	45
Case Study: Niger Delta Partnership Initiative	46
Harness innovation and technology to mobilize youth passion	48
CONCLUSION	50
ENDNOTES	52

FOREWORD



The world is home to more young people than ever.

Over 50 percent of the global population is below the age of 30, and 90 percent of them live in emerging markets. In India, one million people turn 18 every month. Africa's population is on track to nearly double by 2050. With automation and artificial intelligence, the future of work is changing. Young people will not wait for business leaders to figure out how to include them.

There's an urgent need to increase livelihood opportunities for young adults. Young people are longing to participate in and contribute to their economies and societies. To keep pace with population growth, the world needs to create one billion new jobs by 2025.

The infrastructure and natural resources sectors face their own related challenges: an aging workforce, skills gaps, rapidly evolving technology, environmental and governance risks, shifts in the benefits they offer host countries, reputation challenges, and unstable or unpredictable operating environments.

Engaged and mobilized youth can be productive partners that help these sectors reach core business goals, in addition to corporate social responsibility objectives. While it takes many forms, youth engagement offers tremendous opportunities for companies in emerging markets to prepare the next generation of skilled workers, including young women; develop new value chains; mitigate sustainability risks; bolster local and national economic development; and capitalize on technical innovations and evolving communications.

This report offers practical, actionable guidance and makes the business case for companies to engage more proactively with young adults. Based on interviews with and dialogue among industry leaders, government officials, development experts, and young people, this report is structured in three sections:

• Key Industry & Youth Challenges introduces the state of the infrastructure and natural resource sectors and demographics in emerging markets.

- Youth Engagement Offers Solutions articulates opportunities available to these companies.
- An Action Plan offers foundational and targeted activities that companies can pursue to create value.

As a potent source of new energy, young adults can help infrastructure and natural resource companies identify business solutions, innovate, and drive return on investment. IFC, a member of the World Bank Group, and the International Youth Foundation created this report to help more companies reap and perpetuate the benefits of meaningful youth engagement.

We believe in the potential of young people and the possibilities of robust collaboration. Youth engagement can change the trajectory of lives and businesses. With more investment, especially in economic opportunities for young adults, the next generations can realize their full potential and companies can realize greater competitive edge. We hope you find this report a useful primer for increasing opportunities for young people, especially in emerging markets, in infrastructure and natural resources and other linked sectors.

William S. Reese

CEC

International Youth Foundation

Stephanie von Friedeburg

COC

International Finance Corporation

EXECUTIVE SUMMARY



Prioritizing strategic youth engagement offers infrastructure and natural resource industries solutions to persistent challenges and an opportunity to meet diverse business objectives.

The infrastructure and natural resource industries (power, transportation, water, oil and gas, and mining) have immense power to shape everyday life around the world, from providing drinking water to powering homes to supplying the elements essential to buildings and cell phone batteries. To reach critical business goals and be competitive, these diverse companies will need to engage a largely untapped resource: the world's 1.8 billion youth.

These young people are innovators and job seekers, parents and students eager to improve the circumstances of their families and communities. As leaders, workers, consumers, and users of technology such as social media, they have begun reshaping the world. However, globally, too many lack access to the opportunities critical to their health, safety, and prosperity. Ninety percent of the world's young people live in low-income and emerging markets, pointing to a huge opportunity for impact. Overall, youth well-being improved only 2 percent from 2014 to 2017.¹ While young people will make up as much as 75 percent of the workforce by 2025, they are also up to three times more likely than adults to be unemployed. Still, as little as \$1.15 per young person is invested in youth economic opportunities globally.²

Many youth, to borrow the words of one young demonstrator, simply want a predictable future. Investing in young people, whether as community members, a workforce, or future leaders, offers infrastructure and natural resource industries more than an opportunity to meet corporate social responsibility targets or mitigate risks. This report aims to make a broad business case for international youth engagement by framing its rationale in response to four key challenges these industries face:

- 1. Talent acquisition and a workforce of the future
- 2. Innovation and competition in an era of rapid technological change
- 3. Building stable, resilient communities and economies
- 4. Increasing pressure for environmental, social, and corporate governance

The need to attract and retain talent and a need to overcome skills mismatches are not unique to the infrastructure and natural resource industries. However, many companies in these sectors face specific obstacles in attracting skilled young workers, which can include unfavorable perceptions and lack of awareness of the various job opportunities in these industries. An aging workforce in many sectors makes the need for a talent pipeline even more imperative. Investments in attracting and retaining talent as well as in technical and work readiness skills training will offer returns across a company, including for HR and diversity and inclusion. In addition to learning about what young people want from work on page 15, see pages 27–30 in the action plan for specific recommendations and a diagnostic tool companies can use to assess their readiness to create a youth-centric strategy.

Meanwhile, the fourth industrial revolution brings changes—some predictable, others not so evident today—with unprecedented speed. The adoption of technologies such as real-time customer data analysis, 3-D printing and modeling, and automation and robotics can help to capture billions of dollars in value.

Engaging and preparing technologically savvy young leaders as partners can allow infrastructure and natural resource companies to reach business goals that include increased competitiveness, reputation management, and a diversified, sustainable supply chain. Today's young people are strongly entrepreneurial—by choice or necessity. In one survey, 65 percent of youth want to start their own businesses, and 86 percent of entrepreneurs of all ages say they have seen "evidence of young people improving and inspiring their business over the last year." Specifically, young adults can be uniquely equipped to help companies drive the shift to digital solutions. Equally valuable is many young people's drive to innovate beyond productivity, including considering how to achieve goals in a sustainable way.

In light of global demographic shifts, young people's well-being is a key ingredient for building the stable communities and economies critical to infrastructure companies' success and international development progress.

Where are the World's Young People?

In Nigeria



of the population of 182 million is **under 30**

In India



of the population is **under 35**

Across Latin America



of the population is **aged 15-29**

Sources: Bloomberg, Bloomberg View, Organization for Economic Co-operation and Development

Youth unemployment and underemployment are challenges around the world, regardless of a country's GDP. Brookings Institution noted that young adults have been encountering "waithood"— spending prime years waiting for jobs and opportunities. Nevertheless, youth outlooks, particularly in emerging and developing markets, remain positive. According to the 2017 Global Youth Wellbeing Index, which includes a list of countries home to nearly 70 percent of the world's youth, 74 percent of young respondents say they will be able to get the kind of job they want. This optimism is a valuable asset that should not be allowed to wither.

Fourth but not last among the challenges examined in the report is increasing pressure on these industries around environmental impact, social responsibility, and governance. Many of these issues can be understood in the context of the Sustainable Development Goals (SDGs), which offer a framework for making progress on the most pressing global issues. The world cannot reach the SDGs without the private sector. Infrastructure and natural resource companies have the opportunity to take a leading role in advancing each of the 17 goals through youth engagement, by promoting social inclusion, environmental sustainability, and economic development. One way to begin is by recognizing and utilizing the desire of many young people, including the 1,700 young CEOs who call themselves YouthActionNet® fellows, to work for a purpose and contribute to the SDGs (page 25). The innovative thinking behind these youth-led ventures offers infrastructure and natural resource companies potential returns, for example, in terms of advisory boards, supply chains, and service providers.

In response to these challenges, this report includes an action plan that offers two categories of recommendations, supported by real-life industry insights, examples, and case studies.

• Foundational activities (page 27): The four activities proposed in this section can benefit all infrastructure and natural resource companies. They revolve around understanding youth and engaging them strategically, rather than undertaking one-off interventions that are not sustainable or scalable. Creating a strategy that directly responds to youth potential and tracks impact will be essential for these industries to align objectives across departments, including attracting and retaining talent and bolstering local stability.

• Targeted activities (page 32): These five recommendations respond to the specific challenges companies experience and include tactics for engaging different groups of youth: those local to where companies operate hungry for opportunity but lacking in experience, students without prior exposure to these industries, and highly skilled young professionals around the world. Given that the infrastructure and natural resource industries cannot directly employ every young person, this section offers recommendations for supporting opportunities outside the companies and, in some cases, outside these industries (with sometimes overlapping geographies). The supporting case studies include a social enterprise with a mission to support the next generation of women in STEM (page 36), and practical guidance includes strategies for effective corporate-nonprofit partnerships (page 45).

Effective youth engagement recognizes and mobilizes young people and their communities as partners. This work begins by understanding the diverse motivations of youth while acknowledging the prioritization required by companies. Patience, internal and external coordination, and planning are a requisite part of the process. To address the four main challenges, long-term, sustainable and strategic solutions demand engaging young people. As the world's youth population continues to grow, infrastructure and natural resource companies do not have time to lose.

Effectively, Meaningfully, & Strategically Engaging Youth

FOUNDATIONAL ACTIVITIES



1. Know the target audience

To avoid stereotypes and successfully engage young people, begin by mapping their priorities and aspirations, perceptions of industry, and opportunities and obstacles in acquiring an education, skills, or work.



2. Develop a youth-focused strategy

In contrast to one-off projects that generate fleeting progress, an effective, longer-term strategy aligns and advances the objectives of internal groups such as leadership, HR, CSR, diversity and inclusion, employee networks, and early career employees. This work can require shifting mindsets and restructuring.



3. Create youth-centric communications plans

Purposeful, targeted outreach deepens trust between industries and young people, manages local youth and community expectations, teaches the world about the underlying role of these companies in their everyday lives, makes careers in these industries attractive, showcases a desire and opportunities for innovation, and attracts promising young talent to infrastructure and natural resources careers.

TARGETED ACTIVITIES



4. Support livelihoods

To recruit and retain talent, companies can reposition to highlight opportunities and revamp internally in ways attractive to young adults.



5. Advance talent and skills development

Build a pipeline by broadening training to include necessary life skills, working with schools, creating internships and apprenticeships, and supporting mentorships and peer-to-peer networks.



6. Champion entrepreneurs and value chain development

Increase opportunities and impact by investing in young business owners within or outside of a company's sector.



7. Build strong partnerships and collaborations

Across industries and working with nonprofits, government, and schools, tap partners' knowledge, networks, and experience for more purposeful youth investment.



8. Harness innovation and technology to mobilize youth

Technically skilled, entrepreneurial young adults can inspire or create new business models, products, and markets.

KEY INDUSTRY & YOUTH CHALLENGES



The infrastructure and natural resources sectors include power, transportation, water, oil and gas, and mining.











Globally, adequate infrastructure is critical to growth and prosperity; without it, cities and nations struggle to do business and offer a minimum quality of life. The international development implications are wide-ranging and acute: 884 million people lack clean drinking water,⁴ and 1.1 billion do not have access to electricity.⁵ The impact of inadequate infrastructure also extends to education, healthcare, and safety—for example, road-related accidents are the leading cause of death for young people worldwide.⁶ Extractive sectors have the potential to contribute to economic diversification and boost economic growth and employment.

While these sectors are critical to economies and individuals. present-day realities hinder their success. Doing business in the 21st century requires an understanding and anticipation of the dynamic and accelerating shifts in economic, political, and societal spheres, and especially grappling with the pace of change in technology and the growing demands of consumers and society. For the infrastructure industries, often considered to be more traditional, less innovative, and slower to adapt, these shifts highlight a number of critical challenges to long-term success. For the extractive industries, several country conditions prevent the development of stronger linkages between the sector and job creation, including the level of economic complexity, the strength of the institutional framework, and the type of policies regarding the spending of government revenues. These challenges will demand new solutions, new skills and new perspectives.

Meanwhile, the world's 1.8 billion 15- to 29-year-olds find themselves in diverse circumstances, with a multitude of skills, ambitions, constraints, and possibilities. They are

consumers, job seekers, entrepreneurs, job creators, parents, leaders, change-makers, and innovators. Some have foregone high school, while others have graduated from college, pursued technical training, or earned an advanced degree. Many have started or want to start their own businesses. Millions are in informal, forced, or hazardous work, and millions more are not in education, employment, or training (NEET). Globally, the unemployment rate among youth is three times higher than it is for adults. Their stories are varied, but too often, their access to opportunity is limited.

Too often youth are either discussed as problems to be solved—or simply not considered. Beginning to understand the challenges young people face, their abilities and potential, what motivates them in life and work, and how they perceive the infrastructure and natural resource industries is key to engaging them as real partners in problem-solving, growth, and innovation.

This section considers four key areas demanding action by these industries:

- Find and retain talent
- Innovate and be competitive in the context of the 4th industrial evolution
- Enable a stable operating environment
- Respond to pressure and risks around the environment, social responsibility, and transparency

Infrastructure and natural resource industries face four key challenges:

- 1 Find and retain
- 2 **Innovate** and be competitive in the context of the 4th industrial evolution
- 3 **Enable** a stable operating environment
- 4 **Respond** to pressure and risks around the environment, social responsibility, and transparency

VOICES OF YOUTH: YOUNG PEOPLE'S OVERALL PERCEPTIONS OF INFRASTRUCTURE AND NATURAL RESOURCE INDUSTRIES

From interviews, youth perceptions of these industries indicate a need for companies to consider how they can position themselves to remain competitive.

- **Vision and mission**: Many young people interviewed for this report struggled to identify something beyond profit they see guiding infrastructure and natural resource industries. "Our perception is that they are extracting as much as they can as fast as they can as cheap as they can," says a young STEM education champion from Chile. "We're a generation motivated by a purpose, a challenge, a mission," a young woman entrepreneur who co-founded an accelerator in Colombia says.
- Innovation: Responses indicate young people see considerable room for growth. "These industries are old fashioned and reluctant to change," say two young women studying engineering in Colombia. "I chose this path because I want to innovate," says one. "I want industries to see my desire to innovate and work with technology. I am learning every day."
- **Youth potential**: "I have an older coworker who didn't want to work with me and told me how lucky I was to be working with him," says a young infrastructure employee in Argentina. Beyond recognizing youth potential, others expressed feeling misunderstood or that industries were scared of them. Some did not know how to get a foot in the door. "It's already hard to get a job, and companies want a lot of experience. What is the way to make the first step in that reality to get a good job?" asked one young student from Colombia.
- **Sustainability**: Many young people are passionately vocal about environmental protection, social responsibility, and sustainable development. Often, they point to concerns of waste and pollution created by these industries, and they think more favorably of renewable energy. These young people want these companies to articulate a vision for environmental protection and sustainable development that includes meaningful action. "For me the environmental impact [of mining] is always negative," says one young man from Chile.
- **Gender**: From construction to mining to renewables, young women need focused approaches to promote their involvement. In addition to the education gap between men and women, they fight against gender discrimination—including sexual harassment⁸ and unconscious bias by managers⁹—that discourages their engagement. "There's an industry perspective that young women can come, but they will go," because of pregnancy or other factors, one young woman from Guinea stated. "You always hear that women are not interested in those types of jobs. I just don't buy the fact that women wouldn't want to participate, have the highest paying job," said one young woman engineer.
- **Inclusivity**: In many countries, young people see these industries as benefiting the few, and often expatriates rather than locals. Managing local expectations about the availability of opportunities and communicating about any other company-led activities will help improve local image.

Talent and the workforce of the future

Today, virtually every industry struggles to secure a solid talent pipeline, ¹⁰ and 40 percent of employers globally report talent shortages or skills mismatches. ¹¹ In the United States, almost three-quarters of employers across energy-related sectors reported difficulty hiring qualified workers in 2016. ¹² Of the 10 hardest to fill jobs, skilled trades are first, engineers are fourth, and technicians are fifth. ¹³ In the construction sector, for example, 50 percent of the industry is concerned about finding experienced crafts workers. ¹⁴

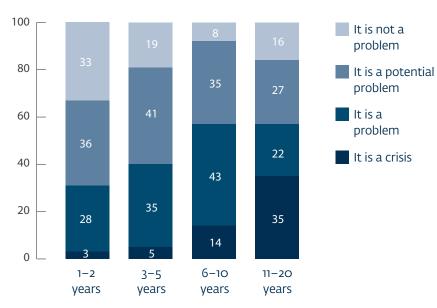
Millennials, born in the 1980s and 1990s will make up a majority of the global workforce within the next 10 years. ¹⁵ Members of Generation Z, born in 2000 or later, are turning 18 as of publication of this report. ¹⁶

Meanwhile, these industries find themselves with an aging workforce. In mining, the average age is 46.5 years old. In rail systems, the average age is approximately 45, and in Africa the range can be 50 and older. In utilities, more than half of workers are 45 years or older. In energy, the average worker is almost 50, and the average retirement age is 55.¹⁷

According to a 2016 study by the Society for Human Resource Management, more than half of human resource professionals at oil, gas, and mining companies consider the aging workforce a crisis or a problem over the next 11 to 20 years. ¹⁸ The same research suggests these HR professionals are already analyzing the impact of pending retirements and future workforce needs at a higher rate than their peers in other industries. However, building a talent pipeline takes years; to meet current and future demand, investments cannot be delayed.

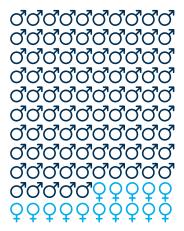
Less than a decade from now, the oil and gas industry likely will lose a majority of its current geoscience workforce to retirement. The associated price tag can be as much as 20 times more than the costs of recruitment and training. Meanwhile, only 2 percent of college graduates in the United States name the oil and gas industry their top employment choice. The will will be sufficiently and gas industry their top employment choice.

Perceived Impact of an Aging Workforce on the Oil, Gas, and Mining Industry



Source: "Preparing for an Aging Workforce: Oil, Gas, and Mining Industry Toolkit"; Society for Human Resource Management

The Energy Industry Gender Gap



Women make up **15 percent** of the energy industry globally.

Source: "Industry Gender Gap Profile: Energy," World Economic Forum



At the same time, attracting talent across these industries can be challenging based on negative popular perceptions, a lack of awareness of opportunities, or a combination of the two. Negative perceptions from youth can include seeing infrastructure and natural resource companies as "macho and slow-moving." ²²

The gender gap in many of these sectors is high, for reasons that can include harassment, unconscious bias among managers, lack of role models, and poor work-life balance. For example, just 2.6 percent of the U.S. construction

workforce is women, three-quarters of whom are white.²³ In energy, women make up 15 percent of the industry globally.²⁴ ²⁵ Only 5 to 11 percent of the oil, gas, and mining workforce is women.

In addition to negative perceptions, many young people and some educators lack exposure to and awareness of the types and diversity of industry jobs, including those that don't require a hard hat.²⁶

Talent is critical for infrastructure and natural resources industries of the future to have a properly skilled workforce, build skills, and cultivate leaders, and integrate local content²⁷ in emerging economies. But where will these leaders come from? How can these industries prepare a pipeline of talent with future-proof skills and ensure existing knowledge is transferred? Will they do it in time to avoid losses? Today, these questions challenge many companies, as slow innovation cycles make it increasingly difficult to attract, recruit, and retain talent.

WHAT DO YOUNG ADULTS WANT FROM WORK?

By 2025, millennials will comprise as much as 75 percent of the global workforce. ²⁸ Youth outlooks and motivations differ by region and socioeconomic status. When they are able to earn an income, what else do young workers value? As Deloitte puts it, young people globally want businesses to concentrate on "people (employees, customers, and society), products, and purpose—and less on profits."²⁹

Work-life balance: In IYF's 2016 Global Millennial Viewpoints Survey, 56 percent of respondents said they value work-life balance over starting salary, long-term earning potential, and the tasks involved in the job. In Sub-Saharan Africa, more than half of young people surveyed in Ghana, Kenya, and Nigeria named flexibility as their priority, while nearly 70 percent in Uganda cited initial salary. These figures track with other findings; for example, the 29-country 2016 Deloitte Millennial Survey cites work-life balance as the most important factor in employment.³⁰ Lack of flexibility figures among the top reasons young people quit their jobs.³¹

Alongside factors about work-life balance, half of young people surveyed for the 2017 Global Youth Wellbeing Index said their lives are too stressful. A startling 56 percent reported that the way they feel emotionally gets in the way of their job, studies, or social life. Stress also becomes relevant when considering barriers to

leadership: cross-generational research from 19 countries shows that high levels of stress deter young respondents, particularly young women.³²

Learning opportunities: The Millennial Viewpoints Survey found that young people around the world prioritize having supervisors who help them learn and grow.³³ Research by Deloitte indicates that 71 percent of young people likely to leave a job in the next two years are "unhappy with how their leadership skills are being developed"³⁴ and that millennials rate "learning and development opportunities" as the number one driver of a good job. Young survey respondents in the United States say they would be willing to give up \$7,600 in salary every year to work at a job that provided a better environment.³⁵

Purpose: While many young people around the world prioritize any way to provide for themselves and their families, many others are motivated by purpose and see greater potential—and need—for companies to advance causes and goals such as the Sustainable Development Goals (SDGs). According to Deloitte's 2017 Millennial Survey, 76 percent of young respondents regard business as a force for positive social impact.³⁶ In developed economies, mission-oriented ambition is a hallmark of millennials in the workplace: 84 percent place the ability to make a lasting difference at the top of their professional goals.³⁷

Entrepreneurship



of youth want to **start their own business**



of entrepreneurs say young people have improved & inspired their business

Source: EY Global Job Creation and Youth Entrepreneurship Survey 2015

Innovation and competition in an era of rapid change

The fourth industrial revolution³⁸ is here, and it is changing how companies work, the types of jobs they offer, and the skills required to fill those positions, some that have not even been well defined yet. While digital innovations create a myriad of new possibilities and opportunities, the unprecedented rate of technological change creates challenges for companies working to stay relevant and competitive. For the first time, digital effectiveness was identified as the top business risk for the mining and metals sector in 2017 and 2018.³⁹

For the infrastructure and natural resources industries, technological and especially digital innovations promise vast improvements in productivity and performance and the possibility to capture billions of dollars of value. 40 Technologies such as real-time customer data analysis, safety enhancements from wearables, 3-D printing and modeling, pinpoint drilling accuracy, automation and robotics, and predictive modeling for extended machine life, to name a few. However, unlocking and capturing this value will require new skills and operating cultures. 41

Despite all of this promise, the infrastructure and natural resource industries historically have been slow to adopt new technology and optimize its benefits. For a sector such as engineering and construction, delays are seen to be due to a combination of factors that include "persistent fragmentation of the industry, inadequate collaboration with suppliers and contractors, the difficulties in recruiting a talented workforce, and insufficient knowledge transfer from project to project."42 These factors also plague other industries in the upstream of the infrastructure and natural resources value chains. It bears mentioning that these industries also require stringent safety testing, because the risk of failure could be catastrophic. From ports to sanitation to mines, the ability to innovate will enable companies to thrive—or falter without it.

Young people are strongly entrepreneurial—by choice or necessity. Globally, EY found that nearly half of the world's entrepreneurs are ages 25 to 44.⁴³ The same research shows that 65 percent of youth surveyed want to start their own businesses, and 86 percent of entrepreneurs of all ages say they have seen "evidence of young people improving and inspiring their business over the last year."⁴⁴

In terms of adopting and comfortably navigating change, young people also are the most active users of information and communication technology. Around the world, more than 830 million young people are online. Globally, 71 percent of young people ages 15 to 24 use the internet, compared to 48 percent of the total population. According to the International Telecommunication Union, Young people are at the forefront of today's information society."

Building stable, resilient communities and economies

Stability and enabling environments are critical for business success. Every business owner seeks stability in politics and public services. However, increasingly, these industries' activities are located in fragile areas where conflict or post-conflict, corruption, weak institutions, increasing inequalities, and lack of opportunities lead to uncertainty. Volatile societies create business shocks that can be expensive and difficult to manage.

Whether urban or rural, many of the communities where the infrastructure and natural resource companies operate are encountering multiple issues related to poverty and development and have poor educational systems. They are also the economies home to unprecedented and growing youth populations.

Operating in isolated, fragile, and post-conflict environments with few employment opportunities and minimal government regulation, many companies also bear the weight of community expectations. Infrastructure and natural resource companies have evolved considerably in terms of understanding the

importance of social performance in creating a stable operating environment. Still, across these industries, companies struggle to articulate their role, their value, and what they can realistically offer with the allotted project lifecycles and resources.

In a world that's home to more young people than ever before, youth wellbeing is a critical ingredient for stability and private sector productivity. A multifaceted concept, youth well-being can be understood most simply as the abundance—or, too often, scarcity—of opportunities available to young people. It includes access to income-generating activities, health services, quality education, and chances to participate as citizens. 46 Economic opportunities play a key role, but are not the only element. Young people need to be and feel involved, which can take other forms, such as volunteering and peer-to-peer networks. All these activities bolster the social cohesion that is critical to societal stability.

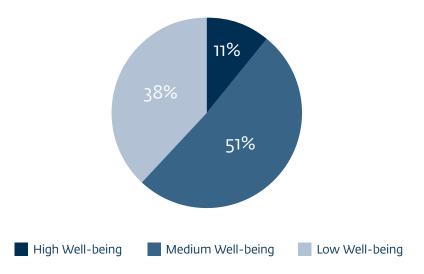
WHERE ARE THE WORLD'S YOUNG PEOPLE?

Ninety percent of the world's population under 30 lives in low-income and emerging markets, and this age group accounts for nearly half of the population in emerging and developing countries.⁴⁷ The location of the majority of the world's young people is relevant for these industries, often operating in remote and underdeveloped parts of the world, and points to a huge opportunity for impact.

- On track to be the third most populous country by 2050,⁴⁸ Nigeria has a population of 182 million—half of which is younger than 30.⁴⁹
- In **India**, two-thirds of the population is under the age of 35, and by 2027 that country will have the world's largest workforce.⁵⁰
- Across Latin America, one quarter of the population is 15 to 29. More than 60 percent of those 163 million young citizens live in poor or vulnerable households.⁵¹



Levels of Global Youth Well-being



Source: 2017 Global Youth Wellbeing Index

"I just need a predictable future," a 28-year-old demonstrator with a physics degree but no steady job told the Los Angeles Times, reporting from Tehran in January 2018 about a wave of protests.58 IYF's 2017 Global Youth Wellbeing Index, created in partnership with Hilton and covering a list of countries home to nearly 70 percent of the global youth population, found that only 11 percent of the young people in those countries experience high levels of well-being. While things are improving; the pace is unacceptably slow: only a 2 percent change from 2014 to 2017.⁵²

Issues persist across countries and international borders. For example, young men and women in Tijuana, Mexico, and Baltimore, Maryland, feel similarly excluded or distanced from education, employment, civic life, and government. Specific issues shared by both cities include teen pregnancy, juvenile delinquency, and substance abuse.⁵³

Unemployment, underemployment, and informal employment

Too many young adults bear the burden of unemployment, underemployment, and informal employment. According to the Harvard Business Review, "Unemployment has the potential to erode the young adult's confidence ... by delaying or preventing successful adult transitions (e.g., economic self-sufficiency, marriage, parenthood, etc.).⁵⁴

In addition to the psychological toll, delays also undercut young people's lifelong earning potential, which undermines the tax base and overall economic strength.

Consider the Middle East and North Africa, where young people rate unemployment their highest concern—on par with terrorism.⁵⁵ At the time of the Arab Spring, total and youth unemployment in the Middle East and North Africa were the highest of any region (10 and 27 percent, respectively); they have since increased.⁵⁶ In 2008, before those uprisings, the Brookings Institute noted that young adults have been encountering "waithood"—they are spending prime years waiting for jobs and opportunities. Those young people able to afford and complete college are not immune; in Egypt unemployment is highest among young adults with a degree.⁵⁷

Even when youth unemployment rates are low, these figures can mask pervasive informality, which carries a host of issues, and underemployment. As many as 290 million young people are not involved in the formal global job market.⁵⁹ For example, in Sub-Saharan Africa, the working poor, those who earn less than US\$2 a day, constitute two-thirds of the employed.⁶⁰ Almost 70 percent of youth there are among the working poor, and in Arab States and Southern Asia it stands at 39 per cent and 49 percent, respectively.⁶¹

There are gender implications to economic opportunities, unemployment and underemployment, too. The World Bank has found that 155 countries have at least one law that formally impedes women's economic opportunities.62 Innumerable less formal social norms, expectations, and practices also perpetuate gender inequity and economic exclusion. Despite increased access to education and trends for women to be more educated than men in many parts of the world, overall, young women often face higher unemployment rates and are more likely to be not in education, employment, or training (NEET).

For example, unemployment for young women in Egypt is 56 percent, more than double the rate for young men (23 percent).⁶³ In Latin America, women make up 76 percent of NEETs.⁶⁴ If the global gender gap in economic participation shrunk by 25 percent between now and 2025, the global GDP would increase by US\$5.3 trillion.⁶⁵

While globally the market needs to be more inclusive of women, there is also a growing need to ensure young men have equal opportunity to succeed in school and continue in higher education instead of prematurely diverting into lower wage jobs to support households. Young men, like young women, are often at high risk of having to migrate or work in exploitative or dangerous conditions.

Increasing pressure for environmental, social, and corporate governance

The infrastructure and natural resource industries increasingly find themselves under pressure to respond to concerns about their environmental impact, social responsibility, and governance. Public and governmental scrutiny only have intensified, pointing to a need to find new ways of operating, demonstrate true commitment to mitigating risks and resolving issues, and strategically communicate their value-add.

For example, according to a 2017 EY perceptions study, three-quarters of oil and natural gas executives say the public does not trust their industry. The same research shows that while people see the industry's economic value and contributions to a modern lifestyle, they "distrust it to protect the environment or consumer pocketbooks." (Gallup polls in the United States show that the industry has the second lowest public opinion ratings, better than only the federal government. (67)

The EY research points out that "the perception that the oil and gas industry is good for society decreases with each new generation." Generation Z, who are younger than millennials, are the most likely to say oil and gas are "bad

for society."⁶⁸ Such findings point to a growing need for these industries to demonstrate and articulate their value and commitment to issues including growth, employment, environmental sustainability and local economic development. An IFC study on the effects of the development of the oil and gas sector in Ghana intends to shed light in this generalized debate among emerging economies.⁶⁹

Major hubs of international economic activity, ports have also had to confront public opinion. While many issues have been labor-related, others have been motivated by environmental and societal concerns. In 2015, the Port of Seattle faced controversy and protests after a company wanted to use a terminal as a base for Arctic oil exploration; as of November 2017 that port has created an energy and sustainability directive that includes closer scrutiny of the environmental impacts of new projects and the installation of solar panels.⁷⁰ In China, explosions at the port of Tianjian drew global scrutiny,71 and in southern India, local fishermen have led protests against port expansions claiming threat to their fishing businesses and damage to their homes.72

Meanwhile, mining companies have come under fire for issues such as water contamination, safety risks, and threats to traditional livelihoods. In 2017, El Salvador became the first country to ban metals mining nationwide, citing environmental fragility—specifically a scarcity of clean water.⁷³ In Peru, conflicts between farmers and mining projects have led to halted projects, billions in losses, and police and civilian deaths.⁷⁴ At the same time, the world is beginning to grow more aware of how mining, for elements such as lithium and cobalt,75 enables modern technology, lifestyles and renewable energy innovations.⁷⁶ If companies act responsibly in host countries and communicate strategically, global consciousness could play in their favor.

Women's Economic Opportunity

155

countries have laws that **limit women's economic opportunity**



of young women in Egypt are unemployed, more than **double the** rate for young men



of **NEETS**in Latin America
are **young women**

See notes 62, 63, and 64

One study revealed that major mining projects with a capital expenditure of US\$3 to \$5 billion can expect disruptions to cost them approximately US\$20 million per week, largely in lost sales.⁷⁷

The Economist reported that a coalition of NGOs in Latin America counted 215 "battles" over the exploitation of natural resources in 19 countries in one year.⁷⁸

YOUTH ENGAGEMENT OFFERS SOLUTIONS



Youth skills, drive, optimism, and desire for change are exactly the infusion of talent and innovation that can power these industries forward.

Despite global demographics, investment in young people, specifically their economic opportunities, pales in comparison to the attention and funding given to other areas. In 2014, international multilateral agencies, bilateral donors, private corporations, and foundations invested as little as \$1.15 per young person in developing countries for economic opportunity programs. The full amount—\$1.8 billion, more than half of which was for vocational training—is about one-seventh of the total investment in health (\$12.6 billion) or agriculture (\$12.6 billion).

Cultivating young talent

Young people are hungry to contribute, and investing in a pipeline of young talent can help companies ensure knowledge transfer, foster innovation, mitigate safety risks, bolster diversity and their ability to reach related objectives, and reduce costs associated with turnover and injuries.

The World Economic Forum's Future of Jobs report points to "young demographics in emerging markets" as the driver of change with the greatest effect on employment (5.16 percent, followed by women's economic power and aspirations, 4.04 percent). 80 For the infrastructure and natural resource industries, two main challenges persist: the industry has a gap in its current workforce, and young people struggle with access to training and employment, and interest in this field.

These industries are not alone in their desire—and struggle—to have access to a trained, skilled workforce. Governments, schools, and training institutions are working to prepare young people for existing and future opportunities. While 87 percent of recent college graduates feel prepared for work, just 50 percent of managers agree.⁸¹ The latter group found the young professionals largely lacking in skills such as communication, problem-solving, and teamwork. To ensure the availability and preparedness of incoming talent, there is a need for greater alignment between industry, schools, and training institutions in terms of which skills are taught.

"Youth engagement is strategic for our business and industry as it builds trust, fosters community stability, and contributes to a talent pipeline."

Leslie Arnold, Head of Corporate Affairs,
 Shale and Minerals, BHP Petroleum

Research indicates that millennials also look favorably on Generation Z, the generation born starting in 2000. Six in 10 say that this younger generation will have a positive influence on the workplace due to their information technology skills and creative thinking. §2 This generational distinction is an important reminder of the need to prepare today's youth as leaders. It also underscores the imperative of creating a youth strategy, as an even younger generation prepares for the world of work.

Returns from investment in skills development can include access to a trained workforce, knowledge transfer, cost savings if talent is local (compared to relocating expats), the development of future leaders, and the spurring of innovation. It can help these industries better prepare for the ups and downs of their cyclical nature. Changes in commodity prices can cause mass layoffs every few years, and each spike in turnover has the potential to diminish institutional knowledge and increase safety risks.

Contrary to the stereotype that young people are know-it-alls,83 64 percent cite learning from people with expertise they lack to be an important aspect of rewarding relationships.84

Youth, technology, and innovation

Youth eagerness to innovate and familiarity with technology are competitive assets for forward-thinking businesses.

Digitally savvy and entrepreneurial, innovation-driven young people can be productive partners in reaching business goals that include competitiveness, reputation management and improved public opinion, and a diversified supply chain. Engaging young people as partners in innovation can allow infrastructure and natural resources companies to see results in two key ways:

- 1. Young adults are uniquely equipped to help companies drive the shift to digital solutions that will allow the latter to maintain relevance and be competitive.
- 2. Young people are driven to innovate beyond productivity—beyond how to deliver more product or sales—and considering how also to achieve goals in a sustainable way.

Today's youth have repeatedly demonstrated their desire and ability to offer innovative solutions to pressing business and social challenges. Young people also are thinking about innovation in broad terms, in ways that can drive change. This line of thinking can include

THE VALUE OF DIVERSITY FOR INNOVATION AND THE BOTTOM LINE

Boston Consulting Group points out that, across industries, companies that create a favorable work environment—including advancing diversity, especially in terms of gender—have margins for earnings before interest and taxes four percentage points higher than companies that don't, as well as slightly higher revenue growth.⁸⁵

Diversity is also critical at the decision-making level. According to a 2017 study by the Center for Talent Innovation, companies with leaders who have both inherent and acquired diversity are **70 percent more likely** to capture a new market, and **45 percent more likely** to improve market share.⁸⁶

innovating around alternative energy—to pollute less, to be more sustainable—or it can take the form of innovations in the business model. Being able to position a company as committed in this way also can be a tool for attracting talent and offer a chance to take a leadership role in the fight for hugely pressing issues such as climate change and global poverty.

Technology makes it easier than ever for people to voice concerns and for criticisms and grievances to gain popular momentum. Young people's use of technology empowers them to drive change as consumers and to be potential partners in online reputation management. (Overall, millennial consumers spend a reported \$600 billion each year. (With the increasing demand for more sustainable practices and transparency, youth use social media and other digital platforms to challenge the ways these sectors operate and produce.

Companies should be mindful of this power as they engage young people. Tapping them for ideas and new approaches can help build public trust and understanding of these businesses' contributions to society, including energy generation and components for cell phone technology. For example, YouTube and similar crowdsourced video platforms have changed how companies market their products. Social media also can be a powerful tool to achieve business goals that include awareness and education, collaboration, and recruiting.

Youth optimism as opportunity

Despite their circumstances and a broad lack of opportunity at this critical transitional period in their lives, young people overall remain optimistic about the future. The 2017 Global Youth Wellbeing Index, 88 which incorporates youth perceptions data from the 2016 Millennial Viewpoints Survey, 89 confirms a positive outlook particularly among youth in emerging and developing markets. Other research, such as the Varkey Foundation's Generation Z: Global Citizenship Survey, supports this finding. 90

According to the Index, 89 percent of youth in India and 76 percent in Sub-Saharan African nations say their country's economy will get better. Overall 75 percent of young people surveyed think they will be able to get the kind of job they want. Fifty-nine percent say their standard of living will be better than that of their parents. The highest numbers are seen in Sub-Saharan Africa (84 percent). Young people's optimism is good news that targeted, sustained investment can translate into growth and stability.

Tapping young leaders solving pressing global issues

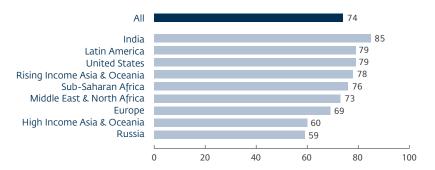
Partnering with young people and investing in their commitment to pressing solving global issues can help companies advance the Sustainable Development Goals (SDGs) and secure related business benefits.

Young people's passion for and broad understanding of innovation, coupled with a desire to work for a purpose, makes them strong partners for companies looking to find new ways to meaningfully contribute to communities, respond to global issues such as climate change, and improve public perception. By engaging young people as partners in development, these industries will be better equipped to contribute to the global goals and be better positioned to articulate their positive impact.

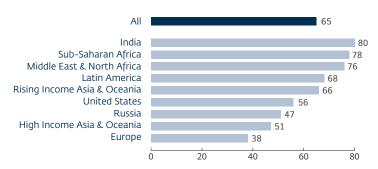
Research points to more and more industry leaders embracing targets such as the SDGs as a critical part of doing business. According to the UN Global Compact-Accenture Strategy CEO Study 2016, "Frustrated ambition has given way to optimism, as CEOs see a mandate to solve societal challenges as a core element in the search for competitive advantage." That report explains that more CEOs (59 percent) are able to accurately quantify the business value of sustainability initiatives than they were in 2013 (38 percent).

Youth Optimism

Percentage of youth who believe they will be able to **get the kind of job they want**.



Percentage of youth who believe they will be able to **make as much money as they want**.



Source: 2016 Global Millennial Viewpoints Survey

CEOs & the Sustainable Development Goals

87

of CEOs see the SDGs as an **opportunity to rethink** approaches **59**^{*}

can quantify the business value of sustainability initiatives **73**[%]

say business should develop **common** SDG **impact indicators**

Source: 2016 United Nations Global Compact-Accenture Strategy CEO Study

"Benefits to business may include concrete cost-savings (e.g., energy, local procurement, water recycling, and reducing conflict), better company alignment with national policies and regulations relevant for the mining sector, improved relations with communities and stakeholders, and support to building an overall better business environment. Aligning with the SDGs can also give mining companies a common language to communicate sustainability performance and impact."

—Mapping Mining to the Sustainable Development Goals: An Atlas, World Economic Forum, UNDP, CCSI, UNSDSN

While there is a growing understanding of the value of sustainability issues, there remains a need to pivot to understand young people as protagonists and partners, not antagonists or periphery characters.

Indeed, other sectors, especially the nonprofit sector, have tapped into the ideas and passions of young people to advance their work. For example, the Global Water Partnership has created a specific youth strategy (in addition to a gender strategy) based on the guiding principle of this report: young people are assets. "Enhancing the role that young people play and actively involving them in protecting the environment and promoting economic and social development will be essential to drive our societies towards sustainable development," the strategy explains. 93



YOUNG PEOPLE ADVANCING THE SDGS MOST RELEVANT TO THE INFRASTRUCTURE AND NATURAL RESOURCE INDUSTRIES

These young social innovators are just a few of the creative and dedicated young people pioneering solutions to the world's biggest problems—ones these industries also can be leaders in solving. Where appropriate, infrastructure and natural resource companies have the opportunity to engage these young men and women as service providers and consultants in their value chains, on advisory boards, and in employee engagement activities, and by funding their projects, connecting them with mentors, and raising the visibility of the work.

SDG 4: Quality Education Build a talent pipeline

Oscar Contreras-Villaroel grew up with a passion for science. He believes the reluctance some youth feel about studying science, technology, engineering, and math (STEM) has to do with how these subjects are taught. That's why in 2011 he started Fundación Ciencia Joven (Youth Science Foundation) in his native Chile. With the support of corporate partner Bayer, Fundación Ciencia Joven has expanded to Argentina, Uruguay, and Mexico, introducing young women and men to an interactive, hands-on, more accessible approach that teaches young people to think like scientists.

SDG 7: Clean, affordable energy and SDG 13: Climate change Improve public perception and local stability

Gerald Kimuli started K&G Solar Power in 2012 because, in addition to seeing a potentially profitable business opportunity, Kimuli felt a calling to provide an affordable, dependable source of light to the rural population in Uganda—only one percent of whom have access to electricity. Partnering with local microfinance institutions, clients can secure loans with interest rates up to half what larger banks often charge. By 2021, Kimuli hopes to provide 1 million people with access to solar powered light, a goal that will positively change people's lives while minimizing their environmental footprints.

SDG 8: Decent work and economic growth and SDG 10: Reduce inequalities Contribute to local economic and social stability

Laura Egan founded Enterprise Learning Projects, an organization that aims to address the widespread exclusion of Aboriginal people in Australia from economic opportunities. Her initiative provides support to micro-business in remote indigenous communities, including traditional artwork and tourism. For example, one project in Katharine, North Territory, launched a bike tour, rental, and repair shop aimed at creating employment and mentoring opportunities for young men at risk of being involved with the criminal justice system.

SDG 9: Industry, Innovation, and Infrastructure Expand and diversify the supply chain, boost local industry, contribute to stability

Peters Akomaye founded Jaymak Energy Resources in 2012 to bridge existing gaps in sanitation and hygiene infrastructure and general pollution control in Burutu, Warri Delta State, Nigeria. He has developed a technology called "biomak II" to treat and discharge treated effluent in a way that meets and even exceeds World Health Organization standards. In this way, he and his company contribute to the reduction of water-related or water-borne disease such as typhoid, and malaria. Today, Jaymak Energy Resources offers a range of services, including environmental studies and monitoring, bioremediation, and a wastewater treatment package. With Peters as Managing Director, the entire team is Nigerian.

ACTION PLAN



How can companies transform the challenges of youth engagement into measurable rewards for young people, communities, and industry? With smart, deliberate action.

While the infrastructure and natural resource industry already has made various types of investments, a more intentional focus on reaching young people will be critical for long-term business success. The following action steps are divided into two categories: foundational (establishing a strong base) and targeted activities (maximizing returns). Both are vital to establishing, executing, and sustaining meaningful youth engagement strategies.

Foundational Activities: Reaching Youth with Intention

Successfully engaging young people requires a core set of ongoing practices. While many infrastructure and natural resources companies incorporate some or all of those activities, they rarely do so with an intentional youth focus. While local contexts will vary, it is critical to build a strategy and actions on good information and meaningful engagement and communication.

Know the target audience

The first barrier to meaningful, productive engagement has been a lack of understanding between these industries and young people about who the other party is, what they value, and what they can offer. Stereotypes are counterproductive, and a lack of understanding is bad for business in terms of economic and social stability and attracting and retaining talent. In some cases, basic misunderstandings create distance; in others, it causes friction.

How do you move beyond stereotypes? This work can include strategically incorporating youth into baselines, impact assessments, and risk assessments. To effectively engage young people, companies can listen to and map young people in three areas:

- Priorities and aspirations
- Perceptions of industry
- Opportunities and obstacles to acquiring an education, skills, or work

High schools, public job programs, nonprofits, and other groups can also provide assessments; strong partnerships, explored in more detail later in the action plan, are key to achieving results. Companies should use this knowledge to tailor engagement strategies based on stages of youth development and any relevant sub-groups. For example, a project based in an isolated community in northern Canada needs to understand the reality indigenous youth face, including mental health issues, high suicide rates, and elevated risk of dropping out of school.

Develop a youth-focused strategy

One-off projects may generate fleeting progress, but a well-planned, long-term and strategic approach delivers the greatest returns. Making the operating environment more stable takes time, seeing return on investment in skills training takes time, creating a talent pipeline takes time, and nurturing partnerships takes time. Each piece of the puzzle also takes many actors coming together, with a special need to appreciate young people's role as partners in development and decision-makers, workers, and community leaders of the future. A variation in or competition between timeframes can also point to a need for better communication, including companies clearly outlining processes in a way that is relevant and accessible. All of this work requires strategy.

Still, research and field interviews reveal many infrastructure and natural resource companies have no formal youth engagement strategies in place. Companies who recognize the returns and are serious about committing to youth engagement should apply a youth lens to policy and strategy development across the organization.

Creating a stand-alone youth-focused strategy is a goal, but it is not the only way of doing this work and seeing results. Companies can also incorporate youth into other strategies, for example, one addressing STEM education. Either way, the strategy needs to cut across the company, and youth engagement should be designed in and then tracked.

Effectively, Meaningfully, & Strategically Engaging Youth

FOUNDATIONAL ACTIVITIES



1. Know the target audience

To avoid stereotypes and successfully engage young people, begin by mapping their priorities and aspirations, perceptions of industry, and opportunities and obstacles in acquiring an education, skills, or work.



2. Develop a youth-focused strategy

In contrast to one-off projects that generate fleeting progress, an effective, longer-term strategy aligns and advances the objectives of internal groups such as leadership, HR, CSR, diversity and inclusion, employee networks, and early career employees. This work can require shifting mindsets and restructuring.



3. Create youth-centric communications plans

Purposeful, targeted outreach deepens trust between industries and young people, manages local youth and community expectations, teaches the world about the underlying role of these companies in their everyday lives, makes careers in these industries attractive, showcases a desire and opportunities for innovation, and attracts promising young talent to infrastructure and natural resources careers.

TARGETED ACTIVITIES



4. Support livelihoods

To recruit and retain talent, companies can reposition to highlight opportunities and revamp internally in ways attractive to young adults.



Advance talent and skills development

Build a pipeline by broadening training to include necessary life skills, working with schools, creating internships and apprenticeships, and supporting mentorships and peer-to-peer networks.



6. Champion entrepreneurs and value chain development

Increase opportunities and impact by investing in young business owners within or outside of a company's sector.



7. Build strong partnerships and collaborations

Across industries and working with nonprofits, government, and schools, tap partners' knowledge, networks, and experience for more purposeful youth investment.



8. Harness innovation and technology to mobilize youth

Technically skilled, entrepreneurial young adults can inspire or create new business models, products, and markets.

CASE STUDY: LEARNING EXPLORATION ASPIRATION PREPARATION SUCCESS (LEAPS)— BHP AND IYF



In July 2017, **BHP** partnered with the International Youth Foundation (IYF) to identify investment opportunities through Learning Exploration Aspiration Preparation Success (LEAPS). This two-year initiative has three goals: developing the skills of young people, strengthening the capacity of local youth-serving organizations, and creating long-lasting changes. LEAPS will foster collective action and partnership to equip young people ages 11 to 24 with skills critical to their success in education, employment, and civic leadership. LEAPS focuses on education and workforce development within BHP host communities in Texas and Louisiana.

BHP is a leading global resources company with a purpose to create long-term shareholder value through the discovery, acquisition, development and marketing of natural resources. BHP's petroleum business has exploration, development, production and marketing activities in countries around the world, including significant positions in the deepwater Gulf of Mexico, onshore United States, Australia, and Trinidad and Tobago. Across our global operations, BHP is committed to working in ways that are true to BHP Charter values of sustainability, integrity, respect, performance, simplicity and accountability.

For LEAPS, IYF staff collaborates with community stakeholders and youth-serving organizations, including visiting local high schools, to identify existing services, needs, and capacity issues. From these meetings, an example of skills misalignment between graduates and industry and the outward migration of talented young people in pursuit of livelihood opportunities elsewhere have emerged as central issues.

"Supporting youth is one step in building a better future. Youth engagement is also strategic for our business and industry as it builds trust, fosters community stability, and contributes to a talent pipeline. The team at IYF has extensive experience in this area and BHP is delighted to partner with them on this exciting new project," said Leslie Arnold, Head of Corporate Affairs, Shale and Minerals, at BHP Petroleum.

Promising options include building on good practice and expanding existing services to reach a greater number of potential beneficiaries. These services include job fairs and visits by company representatives to expose young people to careers and industries—opportunities otherwise not available in these small, isolated towns. LEAPS is also examining dual-degree programs, expansion of mental health services, and near-peer mentorship as promising means to improve opportunities and outcomes for local young people.

Developing a Youth-Focused Strategy

For many companies, developing a youth-focused strategy will require shifting mindsets and restructuring. Answering the following questions creates a pathway for companies to assess where they stand and how ready they are, overall, to implement changes:

Decision-making

- How do decisions get made?
- Do policies come from the top down, or do they consider different viewpoints?
- In terms of age, race, ethnicity, gender, and discipline, how diverse are decision-makers at every level?

Participation, Collaboration & Innovation

- Is there flexibility to try things a new way or room to learn from mistakes?
- Is the management team truly open to new ideas? Is thinking outside the box celebrated?
- Where are opportunities for greater cross-generational collaboration?
- What are the barriers to encouraging and enabling youth participation across the business?
- In what ways can young people be more empowered and incentivized to come up with and share creative, innovative ideas?
- What mechanisms are in place to receiving, reviewing, recognizing, and, when appropriate, integrating young people's ideas?
- What mechanisms are in place to ensure knowledge transfer (up and down)?

Growth & Young Leaders

- How does leadership promote and advance diversity? Do managers have incentives?
- Are managers prepared to nurture employee talents and develop their skills in a millennial environment?
- Are there speaking opportunities—internal or external—for young people?
- What support is in place for new and future leaders?

"You can't overlook the level of internal coordination required for youth engagement, because it spans so many different departments. HR looks at talent retention, the CSR team focuses on building community relations, and so on. Aligning on mission, understanding what exists, and getting the internal relationships working well can be tricky within a company."

-Lisa Wee, Public Policy and Corporate Responsibility Advisor, Chevron

Done properly, a strategy will give a company's different internal groups, such as leadership, HR, CSR, diversity and inclusion, employee networks, and early career employees the opportunity to align their objectives. To adequately leverage resources and serve the needs of the intended beneficiaries, projects aimed at reaching youth need to occur within the context of a broader strategy, whether the stated goal is youth engagement or a target such as enriching STEM education.

Develop youth-centric communications plans

Companies should develop communications plans with purposeful, targeted outreach that deepens trust between industries and youth, manages local youth and community expectations, teaches the world about the underlying role of these companies in their everyday lives, makes careers in these industries attractive, showcases a desire and opportunities for innovation, and attracts promising young talent to infrastructure and natural resources careers.

Communications requires planning: identifying relevant internal objectives, truly listening to and understanding your key audiences, identifying the messages that will resonate with them, and understanding what channels to use to distribute those messages.

To communicate effectively, organizations can consider these recommendations:

- Bring together the necessary stakeholders. Internally, this means coordinating across departments to understand various business goals; externally, it means convening community members, including elders but especially youth, to hear their concerns and ideas.
- As part of a plan, connect with young people where they are. Depending on local context, use smartphones, social, media, and other digital platforms to deliver messages and solicit insights.
- Employ creative engagement tactics that leverage local youth's interests in areas such music, fashion, arts, and entertainment. For example, host or sponsor sporting events, or develop materials that address issues many young people care about, such as the environment.
- Raise awareness about the role that infrastructure and natural resource companies play in day-to-day life. For example, consider a campaign about how the smartphones people use are built from components mined by these industries at factories fueled by energy natural resources companies

- have supplied. Or highlight the role of transportation and ports in allowing goods to reach them. To pool resources and optimize reach, companies can consider working together on such campaigns or hire young producers to design the campaign.
- Stay authentic in all communications materials; media savvy young people are skeptical of marketing messages.
- Engage local young adults in developing their own communications related to the infrastructure and natural resources industries. Reach out to young local filmmakers and video production studios to produce documentaries or short features, for example.
- Invite youth to tour workplaces and spend a day with current employees.
 Then have an employee follow up to ask about their experience.
- Develop a grievance process with the help of young people to establish an open line of communication with the community and engender greater trust.

Targeted Youth Investments: Maximizing Returns

Today, job creation remains the go-to type of investment for infrastructure and natural resource companies, but for success in coming years, it will be imperative for companies to think more broadly and creatively. What will be their reach in terms of value chains and innovation?

Based on interviews with the industry leaders and young people, this section presents a spectrum of practical opportunities to enhance return on investment. Different investments will be important to different companies in different contexts and at different times. Each company must decide what is important for them based on external context and internal priorities. This upfront evaluation and analysis will allow them to more

purposefully and effectively allocate time and resources.

Support livelihoods—direct, indirect, and complimentary

While investment and engagement need to go beyond direct employment, job creation, and livelihoods consistently came through as a priority in interviews with young people and companies. Youth-focused job creation will better the lives of young workers, benefit local economies, support efforts to advance the SDGs (particularly SDG 894), and yield major returns for companies. Moreover, employing youth who face socioeconomic and employment barriers builds critical community goodwill that helps minimize disruptions.

Harnessing the power of the emerging youth workforce requires reflection and adaptation. What needs to be done



CASE STUDY: TRANS-GABON RAILWAY ON TRACK TO ENGAGE LOCAL YOUTH



Société d'Exploitation du Transgabonais (SETRAG),

has been the concessionaire of the 650-kilometer Transgabonais rail line between Franceville and the Owendo port station in Libreville, Gabon. The railway serves Gabon's main central economic corridor and helps connect the country's landlocked iron ore and manganese mines to international markets.

Since 2016, unemployed youth living in areas along the railway line in Libreville had vandalized passenger trains. These acts involved throwing stones at passengers' wagons windows, thereby causing significant damage to the equipment and sometimes injuring passengers.

With the help of the local community chief and household heads from the affected areas, SETRAG identified 25 young adults, ranging from 18 to 25 years of age who were the main responsible parties. The community heads helped hold discussions that brought all parties together and helped to reinforce the consequences of the vandalism. After discussions, SETRAG gave the young people roles

to ensure passenger trains could pass safely and without vandalism and to remove garbage on and around the rail-way tracks. Local young adults are paid a stipend of FCA 2.5 million per month, or about US\$180 each per month, for this work.

Since July 2017, except for one isolated case, acts of vandalism have been eradicated along this urban section of the rail. A teacher at the high school near the station has also assisted with a safety awareness campaign to increase students awareness of potential hazards at the crossings.

SETRAG offers workshops in mechanical engineering and maintenance that are available to all community members and is continuing to review different ways to engage young people locally.

differently to ensure companies can attract and retain young adults with the necessary skills and young people can get a foot in the door and be connected to opportunities to contribute and grow? The findings of this research highlight two key areas:

- 1. Access: Create attractive jobs, change how opportunities are communicated, and increase access to opportunities (e.g., terms of reference designed for younger workers to compete).
- 2. Appeal: Create internal structures and cultures that facilitate youth engagement and make these companies attractive places to work.

At the same time, many companies can do more to manage community expectations about a given project's actual employment potential and at what skills levels. In too many circumstances, the demand for work far exceeds the number of jobs available, and not enough applicants have the necessary skills. Even when direct job creation will be minimal, transparent, meaningful communication—explored earlier in this report as a foundational activity for any type of youth engagement—is key to building and maintaining good relationships with young people and their communities.

This section identifies youth in two basic categories: young people closer to operations, who may not be highly skilled, and young adults with relevant training who could be considered for specialist technical roles that often would be located in national capitals or a company headquarters.



Reposition to recruit young talent and be more competitive

Talent is top of mind for every industry, and infrastructure and natural resource companies are no exception. However, many of these industries are not top of mind for young people. To attract and retain a new generation of skilled workers, companies will have to understand and respond to what motivates young employees and also improve access to jobs.

To appeal to young adults for specialist technical roles amid fierce competition, companies can begin by creating attractive jobs. Here, 'attractive' responds to what motivates young people. As the first section of this report explored, beyond needing an income, young jobseekers generally want to solve problems, work toward a purpose, learn, find work-life balance, have supportive managers, and advance innovative ideas and practices. Companies can build these things into job descriptions and duties and the organizational culture and structure.

In addition to being able to increase awareness of opportunities in these industries, through outreach and communications, there is a need to create and articulate a compelling vision of a company's purpose and social contributions. Companies can show how their work aligns with young people's values98—perhaps through the lens of the SDGs—and emphasize their pursuit of innovation or what in their work is innovative. For example, in South Africa, it can include showing how proprietary technology is used to advance wildlife protection. (See the WomEng case study, page 36, for more details.) Companies can also focus on articulating the range of jobs options and formats for example, combating many young people's misunderstanding that all mining jobs require working inside a mine.99

In 2016, 3M supplanted Google in the number one spot on the National Society of High School Scholars' 2016 Millennial Career Survey. Students' desire to work for the company resulted from an intensive, all-digital campaign targeting young people called "3M Science. Applied to Life. It emphasized all the ways the products are relevant to daily life and the "unexpected and impactful ways that 3M science helps makes life better. So promote it, the company appeared at popular tech conferences such as SXSW. Similarly, infrastructure and natural resource companies make substantial contributions to modern daily life (e.g., smartphones, batteries, and cars) and could follow 3M's example to better market themselves and communicate their value, especially to young people.

Michael Max Buehler, Head of Infrastructure and Urban Development at the World Economic Forum, gives the example of how the construction sector can begin making a shift in communicating their social contributions. Describing potential messaging, he says, "These are jobs where you can shape and create the world. We talk about the future—you can't build a future without the physical built environment." Gaming industry workers could be motivated to move to the infrastructure and urban development industry (IU) for a chance to work on real-life projects that make a difference in society. IU companies such as WSP Global and Walsh already recruit game designers who can transfer their visualization and digital design skills from the virtual to the physical world. 100

Armed with an understanding of the local context, companies can consider which of the following methods will be effective to communicate these messages and increase young people's exposure to these industries:

 Use the company's online presence, including social media, to recruit techsavvy young workers.

- Provide site tours that highlight new technology and demonstrate corporate advancements firsthand.
- Send relevant company representatives to visit schools, including in rural, isolated communities.
- Offer internships that allow young people to weigh career options and build their practical knowledge and résumés.
- Support apprenticeships that offer first-hand experience and offer employers value in terms of skills development, productivity, and reduced turnover. ¹⁰¹ According to the Harvard Business Review, employers who invest in apprenticeships get a 38 percent return on their investment. ¹⁰²

CASE STUDY: DEVELOPING WOMEN ENGINEERS IN AFRICA AND BEYOND



Naadiya Moosajee—YouthActionNet® fellow (2009), IYF board member (2012-14), and civil engineer from South Africa—is a self-described "STEM evangelist." She knows firsthand the obstacles girls and young women face in the traditionally male-dominated engineering industry, and she's determined to help change the system. So, in 2006 Naadiya co-founded WomEng, a global nonprofit whose purpose is to "motivate, empower, and celebrate the next generation of women in engineering."

Worldwide, far too many school-aged girls do not even realize that engineering is a career path open to them. And, if a woman graduates with a STEM degree and secures work in the engineering profession, she is less likely than her male counterpart to stay in the position. WomEng is striving to change this by providing a range of interventions and programming—GirlEng, WomEng Fellowship, @Network, and Mentorship—to promote engineering and STEM-related careers for girls and to support young women who go on to pursue advanced degrees or careers in engineering. For example, they conduct information sessions at high schools and university career fairs, hold weekend workshops to assist young women and men during the university application process, provide mentorship and networking opportunities, and showcase women engineers to serve as role models for the next generation.

Through this work, the organization has created a successful model that now includes programming in 15 countries. This list includes Australia, Colombia, Indonesia, Kenya, and the United States. WomEng is reaching young women in additional countries thanks to a collaboration

with UNESCO. The aim is to empower one million girls and young women through STEM education globally.

WomEng also assists businesses and corporations in tailoring their brand messaging and recruitment strategies to attract the top young applicants in the engineering talent pool, many of whom are young women. For example, when Denel Dynamics, a South African defense and aerospace company, set out to attract applications from women engineers, the corporation employed a recruitment strategy that didn't connect with the intended audience. WomEng recommended that instead of emphasizing its reputation as the largest defense contractor in Africa, the company should position itself as a company on the cutting edge of innovation, which would appeal to a younger applicant pool. They also recommended the company demonstrate how their technology could achieve goals such as the protection of endangered species, a pressing local issue.

In addition, WomEng has also worked extensively with Unilever to help raise the profile of engineering jobs for young women, and to highlight Unilever's position as a forward-thinking, environmentally and socially conscious company. During events in Brazil, Indonesia, Mexico, the United Kingdom, and the United States, for example, more than 250 young attendees received a behind-the-scenes glimpse into the fast-moving consumer goods industry. Several will join Unilever as direct hires. WomEng also has worked with Unilever in South Africa to look at attraction, development, and retention for women engineers in the fast-moving consumer goods industry.



Retain youth by revamping internal structures and culture

In addition to creating attractive jobs and reimagining their communications to entice young people with relevant profiles, these industries need to create attractive workplaces. Companies can engage and retain talented young adults with internal structures and culture that recognize their contributions to the business and foster professional development and innovation. This work will make these companies more competitive overall and has cost savings.

Compared to earlier generations, today's young workers place extra value on learning and growth opportunities, 103 and they are eager to contribute as problem-solvers. Responding to this desire with managers who provide constructive feedback and chances to learn and

practice new skills and think up new approaches benefits young employees and, through retention and innovation, the company. Companies can also look at this investment in terms of creating a leadership pipeline, which will also be attractive to prospective and hired talent.

This reexamination of internal structures should identify ways functions work together with a shared vision. Leaders with insights such as those on page 30 can map a new course that integrates a youth strategy into every aspect of the company, from HR to sustainability to procurement. Guidance from Deloitte echoes this report's guidance to recognize young people as individuals:

"Key to improving the relationship between an organization and its millennial workers is to treat them, not as a homogeneous block, but as a set of differentiated segments defined by their life milestones. Employers' efforts to forge better and longer-lasting bonds with millennials should recognize and focus on the particular challenges they face in achieving these milestones." 104

These milestones include working to pay off student debt, afford housing, and find convenient, reliable transportation. That research points to growing evidence that things like housing purchase assistance programs can increase employee loyalty. 105

Inter-generational collaboration and learning

For the benefit of older and younger employees, companies can look for new opportunities for inter-generational collaboration and learning. It can include identifying champions (of every age) for young adults who can help lead youth engagement strategies across their organization and variations on mentoring:

- Tata Steel has implemented reverse mentorships, in which younger employees teach older, specifically about new technology.
- Multinational technology company SAP, which offers digital solutions for industries such as oil and gas and mining, has piloted inter-generational mentoring. Their younger employees gave positive feedback, and more seasoned colleagues reportedly were even more excited. This exchange advances innovation, and recognizes both sets of employees for their contributions—a motivator at any age.
- Traditional mentoring at Sun Microsystems showed that young people who received mentoring from older colleagues were more likely to stay at the company, reducing costs associated with finding and hiring new talent.
- Formal mentorships can also further diversity initiatives. One study found that, when companies implemented them, representation of minority men and women in management increased by approximately 15 percent to 38 percent.¹⁰⁷ See the WomEng case study from South Africa (page 36) for an example about women-to-women mentorships.
- IFC's Millennial Employee Resource Group's reverse mentorship program pairs junior employee mentors with older, senior mentees to drive innovation through cross-functional knowledge sharing, and to

lever inter-generational perspectives for better business solutions. The program helps the organization to develop and retain young talent, bridge generational gaps, and promote a more collaborative work environment.

To provide valuable learning experiences to young employees, companies can also consider short-term exchanges and secondments with external organizations and partners. For example, Chevron and USAID exchanged employees in Angola, and both then helped to support a similar exchange between the Foundation for Partnership Initiatives in the Niger Delta and DAI staff in Nigeria. Doing so not only helps younger professionals understand the challenges faced by those they work with (e.g., contracting complexities), but also enables those young people to act as ambassadors for partners.

Change won't happen overnight, but empowering and incentivizing young workers to continue to bring new ideas to the table—and ensuring there are mechanisms for reviewing and adapting viable approaches—will create a more attractive workplace for young people to join and stay.

Advance talent and skills development

One of the biggest challenges in terms of the relevancy of training is the unprecedented rate of technological change that characterizes the fourth industrial revolution. According to respondents in a World Economic Forum survey, by 2020 more than a third of the desired core skill sets of most occupations will be comprised of skills that are not yet considered crucial to the job today. Schools and training institutions, especially in remote areas such as those where infrastructure and natural resource industries often operate, struggle to keep pace.

In **Brazil**, Anglo American built a new technical training college and funded courses for surrounding communities. The company recruited half of its operators from the college and cut labor costs by one-third by not building homes and relocating employees.

Consider this list of core skill-building recommendations:

- Working with school systems to identify and start addressing the skills workers will need 5 to 10 years from now
- Incorporating a holistic skills training approach, from STEM to job readiness and life skills programs, health and safety, basic math, and literacy
- Creating or expanding a dedicated and shared training centers for specific, industry-relevant skills
- Developing experience through volunteer and internship opportunities, micro degree training, environmental monitoring work, and other positions
- Establishing mentoring programs
- Supporting peer-to-peer networks

How can the infrastructure and natural resource industries really prepare a new generation with skills of the future? Ensuring a solid pipeline has many steps, but companies can begin by looking closely at what skills are and will be needed, which can entail deeper reflection and analysis of where the business stands amidst the fourth industrial revolution and emerging tech opportunities. Having this understanding, these industries can support holistic, market-relevant education and training. Holistic here means considering a range of skills, including STEM but also literacy, health and safety, and life skills.



After a social equity analysis of its Philippine host communities, renewable energy company SN Aboitiz Power Group (SNAP) discovered that only 20 percent of students in the system completed college. This stark reality prompted SNAP to launch a new scholarship program. The opportunity is open to students interested in all career paths, with hopes that participants will use their education to elevate quality of life communitywide.

"In most cases, you get an experienced mason with very good technical skills but a very bad attitude ... These four young men [trained in life skills using Passport to Success®] start work immediately when they get to the site. The rest of the workers wait until the supervisor arrives. They also discourage gossip and incitements that might occur on the site and are quite independent."

—Harrison Warui, site manager at Jayshiv Builders Limited, Kenya, who hired youth trained in construction and life skills through IYF's Barclays-funded Sport for Kenyan Youth Empowerment program¹¹¹

Life skills

This category includes things like self-confidence, communication, and teamwork—the kind of skills that are necessary in every job at every stage of one's career, regardless of technological changes. However, too many young people are not prepared with the skills to interview successfully, carry themselves with self-confidence, or know how to navigate projects as a team. Across industries, as many as 89 percent of executives struggle to find people with these qualities. 109 Research funded by the Rockefeller Foundation found that strengthening life skills in tandem with other cognitive and technical skills bolsters learning outcomes and boosts workforce readiness. 110

As the term indicates, these skills are broadly applicable outside of work too. IYF, through its Passport to Success® curriculum, 112 has seen countless examples of how life skills improve young people's sense of self and belonging. This kind of social inclusion is priceless for communities—and, by improving stability, businesses too.

Through partnerships, companies can tap the relevant expertise of NGOs, the educators and guidance counselors working directly with youth, the networks of chambers of commerce, and existing resources of governments. Skills development is a key issue all of these stakeholders care about and have a vested interest in. Multi-stakeholder alliances particularly hold the power to align the relevant parties in these ecosystems, promote knowledge sharing, and make the best use of existing resources, and change whole systems. See "Build Strong Partnerships" (page 44) for more specific guidance on effective collaboration to achieve strategic objectives.

"The hands-on experience helped me overcome a fear of failure."

—Alibek, 17, participant in a Chevron-funded IYF STEM and life skills initiative in Kazakhstan

Exposure to a variety of skills, types of jobs, avenues for developing experience, and different ways of learning is another important factor for investments targeting skills development. Clearly thought out communication strategies and internship, apprenticeship, and mentorship programs—underpinned by effective strategic partnerships—hold the key to making sure young people, their parents, their schools and training institutions, and their communities more broadly are aware of and able to access opportunities to learn and gain experience.

In complement to relevant training, instilling a capacity for lifelong learning—increasingly available to pursue in the age of massive open online courses (MOOCs)—is especially critical in the context of today's unprecedented rate of technological change. Support for education and training that encourage creativity and the pursuit of knowledge helps to mold a pipeline of talent who can adapt and evolve. Life skills become critically important again because, as one strategist offered in a *Fast Company* interview, "to beat the bot, you have to be human." ¹¹³



Champion entrepreneurs and value chain development

The infrastructure and natural resources sectors alone cannot directly solve the challenge of youth unemployment.

Creating a billion jobs in the next decade is a task for the world, not a subset of industries. Even on a smaller scale, an individual company cannot provide employment for every community member who needs it (although many can do more to manage expectations). Supporting entrepreneurship, within value chains relevant to these industries and in separate sectors, offers these industries a promising opportunity to make a real impact.

From both the industry and youth side, research and interviews for this report repeatedly stressed entrepreneurship and local value chain development as areas for great potential growth. Incentives for investing include greater, longer-term stability with fewer disruptions, a diversified local economy, and the potential for cost savings. For example, hiring a youth-led small business to build and maintain local roads typically costs less than bringing in a larger outside firm. Similarly, localizing critical industry supports—such as big equipment, nuts and bolts, conveyor belts, and protective gear—can save companies money on importing.

Companies can provide avenues for young entrepreneurs and startups to take their ideas to scale with access to small contracts—honing vital skills in the process. This can include exploring joint ventures as a model for expanding local business capacity.

These industries can also look beyond their own needs, to identify other fields with great potential locally. For instance, in Sub-Saharan Africa, agriculture and entrepreneurship are a natural fit. The former provides 60 percent of the continent's jobs, and food production also needs to grow by 60 percent to keep pace with population growth. 114 Consider the case study from Kosmos Energy's Innovation Center (page 43) to see how one company has advanced agricultural entrepreneurship with a specific technology focus.

Globally, young people have expressed an interest in entrepreneurship, either out of necessity or preference. Young entrepreneurs see great potential to improve their own livelihoods by working in communities with infrastructure and natural resources companies. However, too often, they lack access to finance or youth-friendly financial services, and most young adults do not have the funds, training, or networks to grow their businesses. This is especially true in Africa, where finance, infrastructure, and human capital are less accessible than in most parts of the world. Elsewhere, specifically the United States—where a growing number of young people want to be entrepreneurs¹¹⁵—rising student debt has coincided with a 10 percent decrease in youth-led startups. 116

"The local demand for providing goods and services is also driven by the industries. There are short, middle, and long-term opportunities in many sectors."

-Lydia Montalti, Managing Director, Core Advice

CASE STUDY: KOSMOS INNOVATION CENTER



Kosmos Energy Ltd is an international gas and oil company based in the United States with a reputation for discovering and developing emerging petroleum systems quickly, profitably, and safely. Kosmos aims to benefit the local communities in which it operates. In Ghana, where the company discovered the Jubilee Field, finding innovative ways to invest in the revitalization and sustainability of the agriculture industry is of paramount importance since, according to a World Bank report, by 2030 food demand in Africa will increase by 60 percent.

In 2016, the Kosmos Innovation Center (KIC) was designed "to help Ghana build a brighter future by tackling some of the country's key challenges." Each year, a challenge is issued to teams of young women and men in Ghana to address an important societal challenge. In 2016, the AgriTech Challenge asked young people to apply their creative thinking, innovative ideas, and tech savvy to address challenges in the country's agriculture field.

The young entrepreneurs selected each year to participate in the AgriTech Challenge visit local farms, many for the first time in their lives, meet with local farmers and experience firsthand the challenges they face. Based on this intensive field research, teams then develop and test their business solutions. Finally, they pitch their ideas to a panel of experts including members of financial and investment organizations and agribusinesses.

From a pool of hundreds, two winners emerged during the first year of the competition—Tro Tro Tractor provides a mobile, GPS-enabled service that allows farmers the use of tractors and other equipment in their region on demand; Ghalani offers a platform that enables agricultural aggregators to efficiently manage and monitor multiple relationships with the smallholder farmers they serve. Each winning team receives \$50,000 in seed money to start their business as well as technical assistance and invaluable mentorship from the Meltwater Entrepreneurial School of Technology to turn their innovative ideas into reality.

The program transforms the youth mindset and shows them a different future—it encourages a new attitude among youth —that entrepreneurship is a viable and exciting career path and that professional opportunities in agriculture abound. Two years into the competition, the KIC AgriTech Challenge has had over 180 youth participants, and seven new start-ups have been nurtured and created.

"The agricultural sector was not foreign to us, but the Kosmos Innovation Center AgriTech Challenge made us take a second look at what we knew," say Ghalani co-founders Tabby Nanzala Mayabi, from Kenya, and Amanze Ogbonna, from Nigeria. "We were overwhelmed by the opportunities in the agriculture value chain. Now we have created a business solution to improve productivity in the sector. We look forward to building a solid business even before we step out of incubation."

Kosmos Energy takes full ownership of implementing the KIC program, and delivering results, while leveraging local partners and building local capacity as much as possible.

"Without being able to confidently make your case, you don't have any business."

Rudo Mazhandu, 31, owner of a small soap and detergents company in Zimbabwe

In 2017, Shell celebrated the 35th anniversary of its LiveWIRE youth entrepreneurship development program. In the previous year, it supported the start of 353 businesses around the world, and 26 businesses developed through the program entered Shell's supply chain.117 For example, 2006 LiveWIRE graduate Johari bin Brahim started a company that in 2017 won a \$24 million contract to supply tanker, forklift, and manpower services to Shell Brunei.¹¹⁸ In Macae. Brazil, graduate Natalia Vital renovated and opened a hostel that provides affordable accommodations for oil and gas workers in a city, north of Rio de Janeiro, where hotels can be prohibitively expensive. There are other cost savings: for example, in the Netherlands, McNetig provides the company magnet anchoring that in a single instance saved Shell 138,000 Euros.¹¹⁹

Young entrepreneurs in any field, on any continent, benefit from a holistic suite of services:

- Youth-friendly financial services that value young customers and their businesses
- Financial literacy training that helps them be responsible loan recipients
- Bookkeeping lessons that will help them track expenses and identify areas for cost savings and business growth
- Life skills training that gives them the self-confidence to lead and pursue goals
- Mentoring and a network of peers to offer guidance and support, including on how to scale up
- Management training to build and maintain an effective team of employees, even on a small scale

Build strong partnerships and collaborations

Successful youth engagement hinges on strong partnerships and meaningful community involvement. Companies are well served to utilize the expertise and existing resources of youth-focused NGOs, development organizations, government agencies, education systems, youth groups, and small businesses. Tapping partners' knowledge and

experience allows for more purposeful youth investment and collaboration, which, most broadly, brings returns in stabilizing the local enabling environment.

Identifying partners and the expertise they bring early on, as the corporate strategy takes shape, helps to avoid missteps later. For example, BHP's Corporate Social Responsibility team in Texas, United States, recognized a need for a more cohesive strategy to support local youth. They decided to focus their resources and create a strong partnership among local entities and with IYF, an experience global partner. See the BHP case study (page 31) for a closer examination of the value this partnership offers the company and what it promises to deliver local communities.

Local partners have access to, understanding of, and influence among young people. While there are different ways for local partners to be engaged, they can help ensure that programming responds to needs on the grounds. IYF's model, for example, is built on tapping local organizations, networks, and institutions, including community and youth advisory groups and relevant government programs. IYF also strengthens the capacity of these organizations in all functions, including operations, technical services and trainings, advising on how to make existing services more youthfriendly, monitoring and evaluation, and communications.



Strategies for Effective Nonprofit Partnerships

To engage young people, infrastructure and natural resource industries can't go it alone. Strong partnerships are key for reaching identified objectives that lie outside a company's area of expertise, such as knowing how to accurately and meaningfully assess and reach youth.

Consider this general guidance:

- Be patient: meaningful results take time.
- Understand that partnering with nonprofits is itself an investment. Nonprofits need funds to function effectively (as companies do) and deliver successfully on a program, so do not shortchange operational aspects of budgets.

Taking these steps before identifying potential partners will save time and allow partnerships to better respond to company needs:

- Start by clearly determining business and social priorities and objectives.
- Ensure commitment at all appropriate levels of company and belief in the business benefit of the partnership and youth investment.
- · Manage their own expectations in terms of what is feasible with the allotted time and budget.

These suggestions will help companies find a good fit in a nonprofit partner:

- Look at how long a potential partner has been doing this type of work.
- Examine their success in aligning business and social objectives.

CASE STUDY: NIGER DELTA PARTNERSHIP INITIATIVE



Founded in 2010 with an initial five-year, \$50 million endowment from the Chevron Corporation, the Washington DC-based **Niger Delta Partnership**Initiative (NDPI) and Nigeria-based implementing partner Foundation for Partnership Initiatives in the Niger Delta (PIND) fund and facilitate local initiatives to advance the region's socioeconomic development, reduce poverty, promote peace, share information, and build the capacity of local civil society organizations.

For example, to understand why Nigeria's aquaculture industry has seen little growth despite the country's great demand for fresh fish, PIND conducted a value chain analysis. Through this analysis, PIND identified four key factors, including the high cost of importing feed and the lack of locally produced feed. This information was shared with the Delta State government and used to design a pilot program to address the issue. After PIND intervention, training programs were designed to help farmers gain relevant technical, entrepreneurial, and business skills—like assessing risk, tracking costs, making business plans, and reducing debt—that will improve their future success.

In 2012, NDPI and PIND created the Partners for Peace (P4P) Project to empower men, women, and youth to work at the grassroots level to help manage conflict in their communities. Since it started, hundreds of local people have been trained in conflict assessment and resolution strategies. In addition, strengthening ICT

infrastructure—including the development of online communication channels—makes it easier for communities to communicate about early-stage conflicts so mitigation efforts can be employed before tension escalates to violence. A platform referred to as a Peacebuilding Map was developed to aggregate and update information shared by P4P members. Beginning with fewer than 150 members, the P4P network has grown to over 5,000. Between 2016 and 2017, the Prevent Team—PIND's conflict response unit—has responded to and successfully quelled 107 incidents of early conflict.

A recent impact assessment report issued by the Initiative for Global Development shows that the work being done by NDPI and partners is making a difference in the Niger Delta. Among the factors contributing to the success is the focus on relationships, partnerships, and building a diverse network of actors that includes the public and private sectors. Additionally, deep investment from members of civil society is cited as critically important. In the past seven years, NDPI and PIND have shined a light on Nigeria, bringing positive international attention—and funding—to a region that for too long received neither.

According to NDPI Chairman Mamadou Blondin Beye. "We are proud that this assessment validates the progress we have made to date and provides us with recommendations to generate even greater impact going forward."

"Local procurement is the starting point: we have to invest in local entrepreneurs. Our procurement budget is 100 times larger than our social budget. That's how we make the greatest impact."

—Jon Samuel, Group Head of Social Performance and Engagement,

Anglo American

Alignment with government ministries and agencies contributes to sustaining results after a project's completion. If publicized appropriately, successful partnerships also can improve local stability by improving constituents' views of government. In many of the places where these industries operate, communities and young people do not feel a government presence or they perceive it as unresponsive. The 2017 Global Youth Wellbeing Index found that only 33 percent of youth respondents agreed that their country's government cares about their wants and needs. 120

For example, in Peru, mining often occurs in isolated highlands, with only the most basic infrastructure and poor quality of basic services, including education. Communities there have little confidence in their government, which has almost no presence, and instead often have unrealistic expectations for mining companies to solve their youth employment issues.

Education systems make natural partners. Working with teachers and professors, companies can use course curricula to introduce students to their industries and available opportunities. Teachers can also identify students, especially indigenous or at-risk youth, with high potential and interest. Working with these kinds of

systems also offers a chance for large-scale impact. Partnering with schools and training institutions provides an opportunity to make existing training relevant for industry needs, including technical and life skills, and young people benefit from in-demand, market-relevant skills and are better prepared for the work-force. ¹²¹

At the university level, expanding engagement to include not only students with technical majors but also those pursuing fields such as international development and security can help more young people understand the role of the private sector in solving key global challenges. It also gives these students an opportunity to understand the critical role and potential impact they could have, through local stakeholder engagement and social investment, by working for a community-facing company, rather one that is consumer-facing.

While no industry can or should play the role of government agency, there is considerable room for companies to bring the right stakeholders together, including governments and development partners who specialize in social change. Beyond one-on-one relationships, companies can join or initiate multi-stakeholder alliances. Some of the best workforce development solutions happen when leading employers come together to address the talent problem for an entire sector. Such collaborations can be attractive to industry competitors because the training costs are shared and the risk of poaching is limited. 122

Companies can also consider how they can harness young people's desire to use technology for collaborative problem solving, as with crowdsourcing and hackathons. For example, in one such competition GE challenged respondents to reduce the amount of titanium in an aircraft bracket by 30 percent while maintaining the strength and making it weigh less. The winner was a young man in Indonesia who actually reduced the titanium by 80 percent, for a cost of only US\$10.000.

On the spectrum of investment, this kind of effort is strategic for companies with clearly defined objectives that include long-term, systemic change. For example, the New Employment Opportunity (NEO) alliance spans 12 countries in Latin America and the Caribbean and brings together government, civil society, and business; it was created by the Inter-American Development Bank's Multilateral Investment Fund and Labor Markets Unit in partnership with IYF. The initiative is on track to reach 500,000 young people with market-relevant skills and training. While bringing multiple parties together can bring its own set of challenges, aligning all the different players can break down silos, increase youth awareness of opportunities, build a pipeline of talent hungry for opportunity, and increases economic and social stability.

Whatever form it takes, partnership should include youth voices as much as possible—with opportunities for them to shape any work based on their needs and goals. This report has already described youth assessments—addressing their needs, perceptions, and aspirations—as foundational to every investment. But over time, these collaborations are likely to generate a more stable work environment, advance the SDGs and ease pressure on companies around topics such as social responsibility, and open new opportunities for youth and companies alike.

Harness innovation and technology to mobilize youth passion

Engaged as partners, young adults can help guide innovate thinking and practice around new business models, new product developments, and new markets. Industries must be open to new business practices—and in some cases whole new models—to tap into young people's ideas, ideals, and enthusiasm.

To start, reframing innovation beyond productivity will make the infrastructure and natural resource industries more attractive to young talent. There is a need to start by articulating the grand challenges these industries are addressing that resonate with young people—such as the environment, social progress, and transparency. Companies can also emphasize the technological and innovation opportunities. "In general, these sectors focus too heavily on productivity and efficiency innovation, which is too narrow to be attractive," says Jeff Carbeck, Specialized Leader, Advanced Materials and Manufacturing, DC Innovations, at Deloitte.

"In general, these sectors focus too heavily on productivity and efficiency innovation, which is too narrow to be attractive."

-Jeff Carbeck, Specialized Leader, Advanced Materials and Manufacturing,
DC Innovations, at Deloitte

Then, companies need to equip young employees with the resources to solve these challenges. This support can include many of the internal structures described as means for retaining young employees, including evaluating how decisions are made, ensuring managers are equipped to nurture the skills of young talent, removing barriers to youth participation, and confirming that mechanisms are in place for reviewing and possibly integrating young people's ideas.

Understanding the different incentives and work cultures that appeal to young employees is also important. Companies can consider new models that will resonate with young people, for example that of a spinoff startup that gives opportunity to experiment.

"The young generation is well aware of disruption of entire industries by those who come up with new business models. These are the jobs that might be attractive for highly skilled talent," says Michael Max Buehler, Head of Infrastructure and Urban Development at the World Economic Forum. "More and more classical players are investing in externalized entities that behave like startups but are heavily funded by parent company, and if you want to change the corporate culture, [a spinoff] is the easier way to do so."

Meanwhile, infrastructure and natural resources companies are wise to invest in further closing the digital divide that today pulls too many young people further away from opportunity. Technology is the great equalizer, and putting it into the hands of more young people will produce some of the most significant ROI for those committed to improving education, creating jobs, and diversifying the economy for generations to come.

CONCLUSION



A new generation of skilled, tech-savvy workers. Modernized infrastructure and natural resources sectors. Improved relationships with communities. Stronger local and global economies.

Companies can realize these benefits and more by tapping into the extraordinary yet largely unexplored potential of the world's youth.

Such a transformation will require shifts in strategies, mindsets, and perceptions. It will require companies to take the lead in finding partners, identifying problems, and piloting solutions. It will require acting with urgency to bring opportunity to the 290 million young people seeking a sustainable livelihood.

For these sectors, and for the world, the time to invest in youth engagement is now.

ENDNOTES

- 1 "2017 Global Youth Wellbeing Index," International Youth Foundation, http://www.youthindex.org.
- 2 Ritu Sharma and Rohan Naik, "Measuring Investments in Youth Economic Opportunity," International Youth Foundation and the Center for Strategic and International Studies, April 2017, http://www.iyfnet.org/library/measuring-investments-youth-economic-opportunity.
- 3 "Global Job Creation and Youth Entrepreneurship Survey," EY, 2015, http://www.ey.com/Publication/vwLUAssets/EY_global_job_creation_and_youth_entrepreneurship_survey_2015/\$FILE/EY-job-creation-youth-entrepreneurship-survey-2015.pdf.
- 4 "Drinking Water," World Health Organization, July 2017, http://www.who.int/mediacentre/factsheets/fs391/en/.
- 5 "Energy Access," International Energy Agency, 2018, http://www.iea.org/energyaccess/.
- 6 "Fact Sheet: Road Traffic Injuries," World Health Organization, May 2017, http://www.who.int/mediacentre/factsheets/fs358/en/.
- 7 "World Employment and Social Outlook: Trends 2018," International Labour Organization, January 22, 2018, http://www.ilo.org/global/research/global-reports/weso/2018/WCMS_615594/lang--en/index.htm.
- 8 Susan Chira, "We Asked Women in Blue Collar Workplaces about Harassment," The New York Times, December 29, 2017, https://www.nytimes.com/2017/12/29/us/blue-collar-women-harassment.html.
- 9 "The Future of Jobs," World Economic Forum, 2016, http://reports.weforum.org/future-of-jobs-2016.
- 10 Ibid
- 11 "2016-2017 Talent Shortage Survey," Manpower Group, 2017, http://manpowergroup.com/talent-shortage-2016.
- "2017 U.S. Energy and Employment Report," U.S. Department of Energy, January 2017, https://energy.gov/downloads/2017-us-energy-and-employment-report.
- 13 "2016-2017 Talent Shortage Survey," Manpower Group.
- "Shaping the Future of Construction: A Breakthrough in Mindset and Technology," World Economic Forum, May 2016, https://www.weforum.org/reports/shaping-the-future-of-construction-a-breakthrough-in-mindset-and-technology/.
- Morley Winograd and Michael Hais, "How Millennials Could Upend Wall Street and Corporate America," Brookings Institution, May 28, 2014, https://www.brookings.edu/research/how-millennials-could-upend-wall-street-and-corporate-america/.
- 16 This report focuses on young people ages 15 to 35.
- 17 "Aging and Retiring Workforce," Haploos, 2018, http://haploos.com/home/industry-issues/retirement/.
- 18 "Preparing for an Aging Workforce: Oil, Gas, and Mining Industry Toolkit," Society for Human Resource Management, https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/Oil%20gas%20and%20mining%20toolkit.pdf.
- 19 Leila Gonzales and Christopher Keane, "Status of the Geoscience Workforce," American Geological Institute, 2011, https://www.americangeo-sciences.org/sites/default/files/StatusoftheWorkforce2011overview.pdf.
- Dorothy Leonard, Walter Swap, and Gavin Barton, "What's Lost When Experts Retire," Harvard Business Review, December 2, 2014, https://hbr.org/2014/12/whats-lost-when-experts-retire.
- David S. Andrews, Aleek Datta, Charles Newnam, and Jean-Marie Rousset, "The Talent Well Has Run Dry," Accenture, 2016, https://www.accenture.com/t20170328T220443_w_/pl-en/_acnmedia/PDF-47/Accenture-Strategy-Oil-Gas-Talent.pdf.
- 22 "The Mine of the Future: Thoughts from the Next Generation," Brunswick Group, February 2017, https://www.brunswickgroup.com/media/2382/the-mine-of-the-future.pdf.
- 23 "Women in Construction: Still Breaking Ground," National Women's Law Center, 2015, https://nwlc.org/resources/women-construction-still-breaking-ground/.
- 24 "Industry Gender Gap Profile: Energy," World Economic Forum, http://reports.weforum.org/future-of-jobs-2016/energy/.
- 25 Beyond fairness and equality, the World Economic Forum "Future of Jobs" report describes companies are most motivated by a perception of "enhanced decision-making" and a desire to "reflect the gender composition of their customer base."
- 26 "The Mine of the Future," Brunswick Group.
- 27 Local content (procurement) refers to the purchase of goods and services from local businesses, typically in emerging markets and in developed markets where local communities have expectations about participating in new opportunities. Learn more at https://www.commdev.org/wp-content/uploads/2015/06/A-Guide-to-Getting-Started-in-Local-Procurement.pdf.
- 28 Morley Winograd and Michael Hais, "How Millennials Could Upend Wall Street and Corporate America."

- 29 "The Deloitte Millennial Survey 2016," Deloitte, 2016, https://www2.deloitte.com/ge/en/pages/about-deloitte/articles/millennialsurvey1.html.
- 30 Ibid.
- 31 "Work-Life Challenges across Generations," EY, http://www.ey.com/us/en/about-us/our-people-and-culture/ey-work-life-challenges-across-generations-global-study.
- Henrik Bresman and Vinika D. Rao, "How Generations X, Y, and Z Are and Aren't Different," Harvard Business Review, August 25, 2017, https://hbr.org/2017/08/a-survey-of-19-countries-shows-how-generations-x-y-and-z-are-and-arent-different.
- 33 "The 2016 Global Millennial Viewpoints Survey," International Youth Foundation and the Center for Strategic and International Studies, 2017, http://iyfnet.org/library/2016-global-millennial-viewpoints-survey.
- 34 "The Deloitte Millennial Survey 2016," Deloitte.
- 35 Jonathan Chew, "Why Millennials Would Take a \$7,600 Pay Cut for a New Job," Fortune, April 8, 2016, http://fortune.com/2016/04/08/fidelity-millennial-study-career/.
- 36 "Deloitte Global Millennial Survey 2017: 'Pro-Business' but Expecting More," Deloitte, 2017, https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennial-survey-pro-business-but-expecting-more.html.
- 37 "Millennials in the Workplace," Bentley University, Center for Women & Business, https://www.scribd.com/doc/158258672/CWB-Millennial-Report?secret_password=2191s8a7d6j7shshcctt.
- 38 Klaus Schwab, "The Fourth Industrial Revolution," https://www.weforum.org/about/the-fourth-industrial-revolution-by-klaus-schwab.
- 39 "Top 10 Business Risks Facing Mining and Metals," EY, 2017, http://www.ey.com/Publication/vwLUAssets/ey-top-10-business-risks-facing-mining-and-metals-2017-2018/\$FILE/ey-top-10-business-risks-facing-mining-and-metals-2017-2018.pdf.
- 40 "Digital Transformation Initiative," World Economic Forum, January 2017, http://reports.weforum.org/digital-transformation/.
- 41 To learn more, visit http://ascelibrary.org/doi/abs/10.1061/(ASCE)LM.1943-5630.0000127.
- 42 "Shaping the Future of Construction: A Breakthrough in Mindset and Technology," World Economic Forum.
- 43 "Global Job Creation and Youth Entrepreneurship Survey," EY, 2015,
 http://www.ey.com/Publication/vwLUAssets/EYs-2015-global-job-creation-and-youth-entrepreneurship-survey/\$FILE/EYs-2015-global-job-creation-and-youth-entrepreneurship-survey.pdf.
- 44 Ibid.
- 45 "ICT Facts and Figures 2017," International Telecommunication Union, 2017, http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx.
- 46 The 2017 Global Youth Wellbeing Index, the basis for discussing the topic in this report, includes seven domains: gender equality, economic opportunity, education, health, safety and security, citizen participation, and information and communication technology.
- 47 "Emerging Markets Account for 90 Percent of The Global Population Under 30," Euromonitor International, May 2014, http://blog.euromonitor.com/2014/05/emerging-markets-account-for-90-of-the-global-population-aged-under-30.html.
- 48 "World population projected to reach 9.8 billion in 2050, and 11.2 billion in 2100," United Nations Department of Economic and Social Affairs, June 21, 2017, https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html.
- 49 Dulue Mbachu and Tope Alake, "Nigeria Population at 182 Million, with Widening Youth Bulge," Bloomberg, November 8, 2016, https://www.bloomberg.com/news/articles/2016-11-08/nigerian-population-hits-182-million-with-widening-youth-bulge.
- Mihir Sharma, "India's Youth are the World's Future," Bloomberg View, September 7, 2017, https://www.bloomberg.com/view/articles/2017-09-08/india-s-youth-are-the-world-s-future.
- 51 "Latin American Economic Outlook 2017: Youth, Skills, and Entrepreneurship," Organization for Economic Co-operation and Development, 2016, http://www.oecd.org/dev/americas/E-Book_LEO2017.pdf.
- 52 See http://www.youthindex.org to learn more about the 2017 Global Youth Wellbeing Index, including the seven domains that compose youth wellbeing in that publication.
- 53 "Seeing is Believing: Baltimore Team Explores Opportunity Youth Solutions in Mexico," International Youth Foundation, 2017, http://www.iyfreconnectingyouth.org/seeing-believing-baltimore-team-explores-opportunity-youth-solutions-mexico-1.
- Jeylan Mortimer, Mike Vuolo, and Jeremy Staff, "How Unemployment Affects Twenty-Somethings' Self-Worth," Harvard Business Review, December 22, 2016, https://hbr.org/2016/12/how-unemployment-affects-twentysomethings-self-worth.
- 55 "ASDA'A Burson-Marsteller Arab Youth Survey 2017," ASDA'A Burson-Marsteller, 2017, http://arabyouthsurvey.com/findings.html.
- "Youth Unemployment in the Arab World," The Economist, August 9, 2016, https://www.economist.com/blogs/graphicdetail/2016/08/daily-chart-7.

- Adel Abdel Ghafar, "Educated but Unemployed: The Challenge Facing Egypt's Youth," Brookings Doha Center, July 2016, https://www.brookings.edu/wp-content/uploads/2016/07/en_youth_in_egypt-1.pdf.
- 58 "Young, Working Class, and Fed Up: Deadly Protests Driven by a New Crop of Dissenters," Los Angeles Times, January 2, 2018, http://beta.latimes.com/world/middleeast/la-fg-iran-analysis-20180102-story.html.
- 59 Christopher J. Nassetta, "There's a Global Youth Unemployment Crisis. Here's What We Can Do About It," World Economic Forum, September 5, 2016, https://www.weforum.org/agenda/2016/09/theres-a-global-youth-unemployment-crisis-heres-what-we-can-do-about-it.
- 60 Haroon Bhorat and Karmen Naidoo, "Sub-Saharan Africa's Twin Jobs Challenge," Brookings Institution, June 27, 2014, https://www.brookings.edu/blog/africa-in-focus/2014/06/27/sub-saharan-africas-twin-jobs-challenge/.
- 61 "Global Youth Unemployment is on the Rise Again," International Labour Organization, August 2016, http://www.un.org/ youthenvoy/2016/08/global-youth-unemployment-rise/.
- 62 Liz Ford and Mark Anderson, "Women's Prospects Limited by Law in 155 Countries, Finds World Bank Study," The Guardian, September 9, 2015, https://www.theguardian.com/global-development/2015/sep/09/women-business-and-the-law-2016-getting-to-equal-world-bank-report.
- 63 Adel Abdel Ghafar, "Educated but Unemployed: The Challenge Facing Egypt's Youth."
- 64 "Empowering the 40 percent of Young Latin Americans not in Formal Jobs, Education or Training Could Spark New Growth Engines, Says Latest Latin American Economic Outlook," Organization for Economic Co-operation and Development, October 28, 2016, http://www.oecd.org/dev/americas/press-release-latin-american-economic-outlook-2017.htm.
- 65 "The Global Gender Gap Report 2017," World Economic Forum, November 2017, https://www.weforum.org/reports/the-global-gender-gap-report-2017.
- 66 "EY Oil and Gas US Perceptions Study," EY, 2017, http://www.ey.com/us/en/industries/oil---gas/ey-us-perception-of-the-oil-and-gas-industry-2017.
- 67 Jeffrey M. Jones, "Americans' Views of Oil and Gas Industry Improving," Gallup, August 24, 2015, http://news.gallup.com/poll/184784/americans-views-oil-gas-industry-improving.aspx.
- 68 "EY Oil and Gas US Perceptions Study," EY.
- 69 "Estimating the Effects of the Development of the Oil and Gas Sector on Growth and Jobs in Ghana A Modelling and Value Chain Analysis," IFC, April 2018.
- Hal Bernton, "Port of Seattle Takes Steps to Boost Its Green Credentials with Rooftop Solar Panels, Policies," The Seattle Times, November 2, 2017, https://www.seattletimes.com/business/port-of-seattle-takes-steps-to-get-greener/.
- 71 Tom Phillips, "Tianjin Blasts: Fears of Cyanide Pollution as Chinese Officials Lambasted, The Guardian, August 17, 2015, https://www.theguardian.com/world/2015/aug/17/tianjin-explosions-fears-over-pollution-as-chinese-media-lambasts-officials.
- 72 TA Ameerudheen, "Fishermen Stall Construction of Adani Port in Kerala Demanding Rehabilitation for Damaged Homes," Scroll.In, November 2, 2017, https://scroll.in/article/856315/fishermen-stall-construction-of-adani-port-in-kerala-demanding-rehabilitation-for-damaged-homes.
- Jude Webber, "El Salvador Becomes First National To Ban Metals Mining Nationwide," Financial Times, March 29, 2017, https://www.ft.com/content/b8005e8e-14d5-11e7-80f4-13e067d5072c.
- 74 "From Conflict to Co-Operation," The Economist, February 6, 2016, https://www.economist.com/news/americas/21690100-big-miners-have-better-record-their-critics-claim-it-up-governments-balance.
- 75 Todd C. Frankel, "The Cobalt Pipeline," The Washington Post, September 30, 2016, https://www.washingtonpost.com/graphics/business/batteries/congo-cobalt-mining-for-lithium-ion-battery/.
- 76 "Ingredients of a Low-Carbon Economy," IFC, https://www.ifc.org/wps/wcm/connect/fc1777c0-ea81-42b1-a54d-47d1ee10ee3d/mining.pdf?MOD=AJPERES.
- 77 Rachel Davis and Daniel Franks, "Costs of Company-Community Conflict in the Extractive Sector," Corporate Social Responsibility Initiative Report No. 66. Cambridge, MA: Harvard Kennedy School, https://sites.hks.harvard.edu/m-rcbg/CSRI/research/Costs%20of%20Conflict_Davis%20%20Franks.pdf.
- 78 "From Conflict to Co-Operation," The Economist.
- 79 "Measuring Investments in Youth Economic Opportunity," International Youth Foundation.
- 80 "Future of Jobs: Employment Trends," World Economic Forum, http://reports.weforum.org/future-of-jobs-2016/employment-trends/.
- 81 "2016 Workforce Skills Readiness Report," Payscale, https://www.payscale.com/data-packages/job-skills.

- "The Deloitte Millennial Survey 2017: Generation Z Will Be Welcomed," Deloitte, 2017, https://www2.deloitte.com/global/en/pages/about-de-loitte/articles/millennial-survey-generation-z-welcomed.html#generation-z.
- 83 Kavi Guppta, "5 Annoying Arguments about Millennials in the Workforce," Forbes, August 31, 2016, https://www.forbes.com/sites/kaviguppta/2016/08/31/5-annoying-arguments-about-millennials-in-the-workforce/#5aa6fd376a9a.
- 84 "Myths About Millennials at Work," Center for Talent Innovation, 2016, http://www.talentinnovation.org/_private/assets/Millennials_ Infographic-CTI.pdf.
- 85 Rocío Lorenzo, Nicole Voigt, Karin Schetelig, Annika Zawadzki, Isabell Welpe, and Prisca Brosi, "The Mix that Matters: Innovation through Diversity," Boston Consulting Group, April 26, 2017, https://www.bcg.com/fr-fr/publications/2017/people-organization-leadership-talent-innovation-through-diversity-mix-that-matters.aspx.
- 86 Lauren Leader-Chivee, "New Study: Diversity Drives Serial Innovation," Inc.com, October 1, 2013, https://www.inc.com/lauren-leader-chiv%C3%83%C2%A9e/diversity-helps-maximize-your-innovation-potential-.html.
- 87 "Who Are the Millennial Shoppers? And What do They Really Want?" Accenture, 2013, https://www.accenture.com/us-en/insight-outlook-who-are-millennial-shoppers-what-do-they-really-want-retail.
- 88 "2017 Global Youth Wellbeing Index," International Youth Foundation.
- 89 "2016 Global Millennial Viewpoints Survey," International Youth Foundation.
- 90 "Generation Z: Global Citizenship Survey," Varkey Foundation, 2017, https://www.varkeyfoundation.org/generation-z-global-citizenship-survey.
- 91 "2017 Global Youth Wellbeing Index," International Youth Foundation.
- 92 "UN Global Compact Accenture Strategy CEO Study," Accenture, 2016, https://www.accenture.com/us-en/insight-un-global-compact-ceo-study.
- 93 "Youth," Global Water Partnership, 2017, http://www.gwp.org/en/we-act/themesprogrammes/youth/.
- 94 "Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all."
- 95 Karsten Strauss, "The 25 Companies Where Top Millennials Want to Work in 2016 (Google is No Longer No. 1)" Forbes, June 13, 2016, https://www.forbes.com/sites/karstenstrauss/2016/06/13/the-25-companies-where-top-millennials-most-want-to-work-in-2016-google-is-no-longer-1/.
- 96 "Introducing 3M Science. Applied to Life," 3M, March 13, 2015, http://news.3m.com/press-release/company/introducing-3m-science-applied-life.
- 97 "Ingredients of a Low-Carbon Economy," IFC.
- 98 According to Deloitte's 2016 Millennial Survey, most young professionals choose organizations that share their personal values.
- 99 "The Mine of the Future," Brunswick Group.
- 100 "Shaping the Future of Construction: A Breakthrough in Mindset and Technology," World Economic Forum.
- 101 "Why Apprenticeship is Right for Your Company," U.S. Department of Labor, 2017, https://www.dol.gov/featured/apprenticeship/employers.
- 102 Thomas A. Kochan, David Finegold, and Paul Osterman, "Who Can Fix the 'Middle Skills' Gap?" Harvard Business Review, December 2012, https://hbr.org/2012/12/who-can-fix-the-middle-skills-gap.
- 103 Henrik Bresman and Vinika D. Rao, "How Generations X, Y, and Z Are and Aren't Different."
- 104 Dr. Patricia Buckley, Dr. Peter Viechnicki, and Akrur Barua, "A New Understanding of Millennials," Deloitte, October 2015, https://dupress. deloitte.com/dup-us-en/economy/issues-by-the-numbers/understanding-millennials-generational-differences.html.
- 105 James Warren, "It Pays to Help Workers Buy a Home," Bloomberg Businessweek, June 10, 2010, https://www.bloomberg.com/news/articles/2010-06-10/it-pays-to-help-workers-buy-a-home. [subscription required]
- 106 "Young and Old: A Powerful Combination," SAP, March 13, 2015, https://news.sap.com/young-old-powerful-combination/.
- 107 Leila Gonzales and Christopher Keane, "Status of the Geoscience Workforce."
- 108 "Future of Jobs Report," World Economic Forum.
- 109 Kate Davidson, "Employers Find Soft Skills like Critical Thinking in Short Supply," Wall Street Journal, August 30, 2016, https://www.jobspartnership.org/wp-content/uploads/2017/02/Employers-Find-Soft-Skills-Like-Critical-thinking-in-Short-Supply-WSJ.pdf.
- 110 Shubha Jayaram, "What Life Skills Do Employers Want Young Workers to Have?" World Economic Forum, August 20, 2015, https://www.weforum.org/agenda/2015/08/what-life-skills-do-employers-want-young-workers-to-have/.

- 111 Elizabeth Wanja, "Why Life Skills Matter on Kenya's Construction Sites," International Youth Foundation, March 17, 2017, https://www.iyfnet.org/blog/why-life-skills-matter-kenyas-construction-sites.
- 112 Learn more at http://www.iyfnet.org/passport-success.
- 113 Stephanie Vozza, "These Are the Job Skills of the Future that Robots Can't Master," Fast Company, July 7, 2017, https://www.fastcompany.com/40439955/these-are-the-job-skills-of-the-future-that-robots-cant-master.
- 114 Makhtar Diop, "Foresight Africa 2016: Banking on Agriculture for Africa's Future," The Brookings Institution, January 22, 2016, https://www.brookings.edu/blog/africa-in-focus/2016/01/22/foresight-africa-2016-banking-on-agriculture-for-africas-future/.
- 115 Maria Hollenhorst, "Millennials Want to Be Entrepreneurs, But A Tough Economy Stands in Their Way," NPR, September 26, 2016, http://www.npr.org/2016/09/26/495487260/millennials-want-to-be-entrepreneurs-but-a-tough-economy-stands-in-their-way.
- 116 John F. Wasik, "For Young Entrepreneurs, Student Debt Snuffs out Start-Up Hopes," New York Times, January, 11, 2017, https://www.nytimes.com/2017/01/11/business/smallbusiness/for-young-entrepreneurs-college-debts-can-snuff-out-start-up-hopes.html.
- 117 "35 Years of Building Enterprising Futures," Shell LifeWIRE, 2017, https://www.shell-livewire.com/home/newsevents/news/35years/.
- 118 Soh Chin Ong, "The Hyperactive Child Who Never Gave Up," Shell, 2017, http://www.shell.com/inside-energy/livewire-brunei-entrepre-neur-johari-bin-brahim.html.
- 119 "Testimonials & Awards," McNetiq, November 2015, http://mcnetiq.nl/en/Testimonials-Awards.
- 120 "2017 Global Youth Wellbeing Index," International Youth Foundation.
- 121 "Trouble in the Making? The Future of Manufacturing-Led Development," World Bank Group, September 20, 2017, http://www.worldbank.org/en/topic/competitiveness/publication/trouble-in-the-making-the-future-of-manufacturing-led-development.
- 122 Martha Laboissiere and Mona Mourshed, "Closing the Skills Gap: Creating Workforce Development Programs That Work for Everyone," McKinsey & Company, February 2017, https://www.mckinsey.com/industries/social-sector/our-insights/closing-the-skills-gap-creating-workforce-development-programs-that-work-for-everyone.

About the authors

The International Finance Corporation

IFC, a member of the World Bank Group, is the largest global development institution focused on the private sector in emerging markets. Working with more than 2,000 businesses worldwide, we use our capital, expertise, and influence to create markets and opportunities in the toughest areas of the world. In FY17, we delivered a record breaking \$19.3 billion in long-term financing for developing countries leveraging the power of the private sector to help end poverty and boost shared prosperity. The Infrastructure & Natural Resources Advisory team helps create and preserve value for communities and clients through targeted development activities, while managing operational and social risks related to extractives, infrastructure, and other large footprint projects.

To learn more, go to www.ifc.org and www.commdev.org.

The International Youth Foundation

For more than 25 years and in over 100 countries, the International Youth Foundation (IYF®) has focused exclusively on helping young people succeed. A global nonprofit organization, IYF believes that there are three keys to achieving this success: learning skills that will endure, earning a livelihood, and growing as an engaged citizen. IYF supports youth in developing work readiness skills, choosing a career path, and securing employment or deciding to start or grow their own small business or social venture. The resilient spirit of these young women and men inspires us and gives us purpose. IYF initiatives have benefitted more than 7.4 million young people directly, and over 12 million additional people have benefitted indirectly. We forge partnerships to deepen investment and impact in youth employment and engagement. In cities and towns across the United States and around the world, IYF empowers young people to lead productive, fulfilling lives.

To learn more, go to www.iyfnet.org.



