

BETTER BUSINESS BETTER WORLD

**Sustainable Business Opportunities in
the Middle East and North Africa**

December 2017





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Cover photo credit: UN Women/Joe Saade

Members of the Mawasem El Dayaa Women's Cooperative in southern Lebanon make a rare, traditional bread called Mallet El Smid to be sold at the MENNA shop in Beirut. The Cooperative is among the last producers of this signature bread and one of 14 rural women's cooperatives to benefit from vocational trainings and market opportunities offered by the MENNA project, from Amel Association International.

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Solar panels in a desert in Dubai. Photo credit: © Katiekk2 / Adobe Stock

EXECUTIVE SUMMARY

Countries in the Middle East and North Africa (MENA),¹ oil exporters and importers alike, have shown a remarkable capacity to rise to challenges. In recent years, they have had to face a sharp drop in oil prices and the prospect of oil being eclipsed as the world's primary energy source. Governments and businesses in the region are adapting creatively to these economic disruptions, with a combination of fiscal and macroeconomic reforms, and new ventures in non-traditional sectors. Over the past four decades, many parts of the region have also made remarkable progress against social challenges, especially in health and education. Life expectancy across the region has increased on average by 24 percent in the same four decades.² In Saudi Arabia today, 94 percent of adults can read and write, compared to 8 percent in 1970. Across the MENA region, female enrolment in post-secondary education has soared, to the point that female university students now slightly outnumber their male counterparts.³

Perhaps the biggest recent advance investors in MENA have noticed is how much easier it has become to do business. In the last year alone, 11 of the 19 economies covered in this report have put in place nearly two dozen business reforms, many of them designed to help entrepreneurs start a new enterprise.⁴ The results are a strengthened and supportive entrepreneurship ecosystem and an explosion in the number of start-ups: it now takes an average of 17 days to start a business in the region, compared to more than 43 days in 2003. New ventures are employing disruptive technologies in renewable energy, public transportation, and mobile health, to name a few.

Despite these advances, pockets of the region still face long-standing obstacles to economic, social, and environmental progress. In particular, regional conflicts are restricting growth

in the countries directly and indirectly involved: of the 10 countries hosting the highest number of displaced citizens in 2015, four were in MENA.⁵ Unemployment in the region remains high, especially among young people. More than half of MENA's population is under the age of 25.⁶ The proportion of young people out of work reached nearly 30 percent in 2014, and those who do work are often in vulnerable jobs in the informal sector.⁷ Women remain greatly under-represented in the workforce, despite having attained educational qualifications. On the environmental front, the region's scarce water and dry weather make it particularly vulnerable to the effects of climate change.

Major market opportunities

This report offers a way to channel MENA's reserves of entrepreneurial energy into sustainable economic growth that will remove these stubborn obstacles and spread prosperity and social development more evenly across the region. Based on research presented in *Better Business, Better World*, published by the Business and Sustainable Development Commission in January 2017, this report makes the business case for aligning corporate and national strategies with the United Nations (UN) Global Goals for Sustainable Development (Exhibit 1). Formulated by governments, businesses, and civil society around the world, these 17 Global Goals are a guide to practical actions that promote economic growth, protect the planet's resources, and leave no one behind.⁸ Effectively adopting the Global Goals as strategic visions for MENA and its businesses will reframe the region's social and environmental challenges as growth and development opportunities.

EXHIBIT 1 The 17 Global Goals



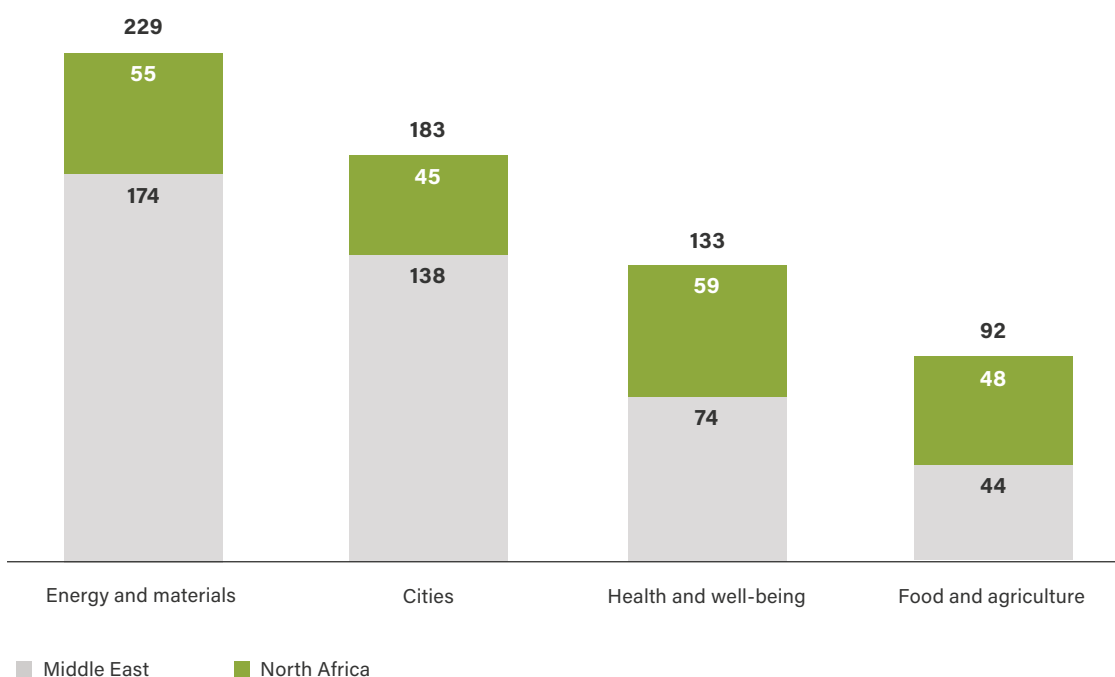
Taking this route opens up attractive investment opportunities in 60 sustainable market ‘hotspots’. Together these opportunities could yield an economic prize worth more than US\$637 billion across the region by 2030, along with enormous environmental and social benefits (Exhibit 2).⁹ For instance, efforts to achieve the Global Goals in MENA will create more than 12 million jobs in the region, largely built on digital technologies, and especially in small and medium enterprises (SMEs). This will spread prosperity in rural and urban settings, and help revive sluggish local labour markets.

EXHIBIT 2

The business opportunities identified in four systems alone will be worth more than US\$637 billion in MENA by 2030

Size of incremental opportunity in 2030*

US\$ billions; 2015 values



Source: Literature search; Alphabeta analysis

*Based on estimated savings or projected market sizings in each area.

This report details and values the most significant business opportunities aligned with the Global Goals in four key areas of MENA’s economies: energy and materials; cities; health and well-being; and food and agriculture. (For an explanation of the four systems, see Box 1. *Quantifying the business opportunities linked to Global Goals.*)

Energy and materials

Worth US\$229 billion per year by 2030

The big story in materials use across the region for the coming decades will be circular production based on recycling, refurbishment, and remanufacturing of materials. Circular business models simultaneously reduce environmental damage and manufacturing costs. They are also capital-intensive and unfamiliar to consumers in MENA, so establishing them is not yet an easy process. But some circular ventures are already underway in the region's automotive, appliance, and electronics industries, and there is scope for many more, together likely to be worth US\$78 billion per year in MENA by 2030. In energy, renewables are already taking off in the region, and are estimated to be worth US\$23 billion per year by 2030. Countries across the region are rethinking their energy mix and searching for 'greener' alternatives, prompted by costly and unpredictable energy prices, increased climate risks, and rapid growth in energy demand. Fortunately, nearly every country has enough sunlight for a thriving solar industry – enough to power the entire planet, some studies say.¹⁰ MENA's long, windy coastlines are also ideal locations for wind farms.¹¹ Falling component costs and better design and development have already put renewable energy on a competitive footing with fossil fuels.

Cities

Worth US\$183 billion per year by 2030

MENA's already large urban population is expected to grow to 70 percent of the total population by 2020 and 75 percent by 2050, when nearly 400 million people will be living in the region's cities.¹² Affordable housing is scarce. Increasing dependence on automobiles and the resulting traffic congestion have reduced average driving speeds to less than 10 kilometres an hour in some of the major cities. Some of the biggest sustainable business opportunities in this context will be improving energy efficiency in buildings (worth US\$52 billion per year by 2030), developing affordable housing (US\$50 billion), and expanding public transport in urban areas (US\$12 billion). Like the other opportunities covered in this report, acting on the public transport opportunity will involve a range of private players – ride-sharing app builders, data processing companies, cab cooperatives, phone carriers and makers, and payment system providers. Expansion in all three areas will also require close partnerships with the public sector.

Health and well-being

Worth US\$133 billion per year by 2030

The region is expected to experience rapid growth in demand for healthcare over the next 15 years because of its ageing population; growing consumer class; the increased prevalence of chronic non-communicable conditions such as cancer and diabetes; and near-endemic obesity. There are also large disparities in spending on, and access to, healthcare across

MENA. These circumstances mean three of the largest sustainable growth areas in health and well-being across the region are risk pooling, to extend health insurance and make quality healthcare affordable for more people (worth US\$31 billion per year by 2030); remote patient monitoring, to improve access to affordable care (US\$29 billion); and activity services that tackle obesity and prevent non-communicable diseases (US\$19 billion).

Food and agriculture

Worth US\$92 billion per year by 2030

The big challenges facing MENA's food and agriculture system are food loss in the supply chain, the shift to a less-nutritious fast-food diet, and wasteful irrigation techniques. These create interesting sustainable opportunities to reduce food waste in supply chains – for instance, by deploying better data systems to manage production and updated cold-storage facilities (worth US\$28 billion per year by 2030). Reformulated meals and processed food products that rebalance nutritional content are expected to be worth an estimated US\$9 billion per year. And modern irrigation systems that use sprinklers and controlled drips to deliver less water more efficiently will be worth US\$8 billion a year.

The total economic prize for pursuing the Global Goals will be bigger than the estimated US\$637 billion available from opportunities in these four areas. More value can be released from other sectors critical to sustainable development, notably information and communications technology (ICT), education, and consumer goods. Economic gains from achieving all the social Global Goals will add substantially to the total prize the private sector could share in. Achieving gender parity alone could add between US\$12 trillion and US\$28 trillion to global growth by 2025.¹³ Better health and education will increase labour productivity. Reduced social inequality and environmental stress will reduce political uncertainty, lowering business risks and multiplying returns on investment. And pricing the actual costs of environmental damage – such as those caused by climate change – into these value projections increases the true size of the prize by a further 40 percent.¹⁴ Seen in this light, the Global Goals offer a compelling growth strategy for individual businesses, business generally, and the world economy.

Forward-looking firms are already developing innovative solutions in all four areas. Many of these innovators are using one or more of the game-changing and largely digitally enabled business models that have developed over the past decade, incorporating the sharing economy, lean services, the circular economy, big data, and new social enterprises. More than 400 companies throughout MENA have already adopted the 10 principles of the UN Global Compact (UNGC), a guide to sustainable business behaviour for companies around the world.¹⁵ Other companies across the region can follow the lead of these pioneers by incorporating the Global Goals into their core growth strategies, value chain operations, and policy positions, whatever the scale of their business.

Sustainable infrastructure financing

Pursuing the opportunities in the 60 market hotspots will bind economic growth in MENA to greater social inclusion and environmental protection across the region. But investment in sustainable infrastructure will be a precondition for achieving the full economic prize, since most gains depend on having the supporting infrastructure in place. This infrastructure is necessary in a range of sectors – including energy, transportation, agriculture, and water – and will need to take many forms, from schools and hospitals to broadband networks that supply high-speed internet access.

Wider and more efficient use of blended finance instruments and vehicles could attract more private capital to support sustainable infrastructure. These instruments can help apportion the risks of infrastructure projects between public and private investors in a way that makes the risk/return profile more feasible for both. There is potential to extend the use of blended finance beyond infrastructure, encouraging private investment into new or riskier sectors, including healthcare, sustainable agriculture and land use, social housing, education for girls, and off-grid clean energy.

Renewing and energising the social contract

More than half of the Global Goals aim to meet basic needs, empowering and protecting those currently disadvantaged in society. Achieving these social goals is also a business imperative. Without improving the incomes, health, rights, and education of the region's working people – not to mention providing better social protection – the business opportunities arising from sustainable development will not fully materialise. In pursuing all the Global Goals, MENA's businesses need to support the efforts of governments and civil society organisations to do likewise, and vice versa.

To this end, businesses must make sure they create well-paid jobs, provide decent working conditions and training, and pursue gender equality in the workplace. They must pay their taxes and use their lobbying power transparently for the general good. Governments need to make sure their policies are clear and aligned with the Global Goals. They must avoid the waste, inefficiency, and corruption that ambiguous and contradictory policies – such as fossil fuel subsidies – encourage today. Governments also need to avoid causing or exacerbating armed conflict. Our research identifies violence and armed conflict as by far the largest and costliest burdens on humanity worldwide.¹⁶ Civil society, for its part, must make sure that businesses and governments act in line with the law. They should lobby for change where laws and local practices fail to combat corruption or protect those hit by rapid and disruptive change.

This report shows how business, governments, and civil society pursuing the future described in the Global Goals can make MENA economically dynamic, socially inclusive, and environmentally stable. Both the economic and moral case for taking this course of action are crystal clear.



Aerial view of Cairo. Photo credit: © derejeb / Adobe Stock

1. A REGION RISING TO ITS CHALLENGES

In recent years, countries in the Middle East and North Africa (MENA) have had to contend with a sharp and sudden drop in oil prices, and the longer-term prospect of oil being eclipsed as the world's primary energy source. Businesses and governments across the region are adapting creatively to these economic challenges. Some areas are making notable developmental advances, especially in encouraging entrepreneurs, improving health and education, and to some extent expanding opportunities for women. That said, there are long-standing challenges to economic, social, and environmental progress in some pockets of the region, such as vulnerability to armed conflict; workforces growing faster than the number of good jobs; and the pace of climate change, which is placing further strains on fragile natural environments.

Adapting to short- and long-term oil market challenges

In 2014, all the oil-exporting economies in MENA – Algeria, Bahrain, Iran, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Syria, the United Arab Emirates, and Yemen – had to deal with an abrupt fall in oil and commodity prices. Several – namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates – have responded rapidly with new taxes (for instance, value-added tax (VAT) and excise taxes) supported by macroeconomic reforms to boost non-oil revenues and cut public spending.

Although the oil-exporting economies are still adjusting to lower oil prices, the reforms are having a positive effect on economic growth across the region. Their financial resilience means many of the region's economies can weather this shock while maintaining stability and low risk.

“Growth in the oil-importing economies should rise in the medium term, reaching 4.4 percent in 2018 and an average of 5.3 percent each year from 2019 to 2022.”

Meanwhile, the region's oil-importing countries – Egypt, Israel, Jordan, Lebanon, Morocco, and Tunisia – have recently benefited from the strengthening of the US dollar, which began promoting economic activity in the oil importers' key trading partners early in 2017. Growth in the oil-importing economies in 2017 as a whole is projected to rise to 4.3 percent, up from 3.6 percent in 2016, and should continue rising into the medium term, reaching 4.4 percent in 2018 and an average of 5.3 percent each year from 2019 to 2022.¹⁷ If the recovery in commodity prices is sustained and the oil exporters' macroeconomic reforms become entrenched, overall growth in gross domestic product (GDP) across the entire MENA region should rebound to 3.2 percent next year, then accelerate gradually, potentially reaching 3.6 percent in 2019.¹⁸

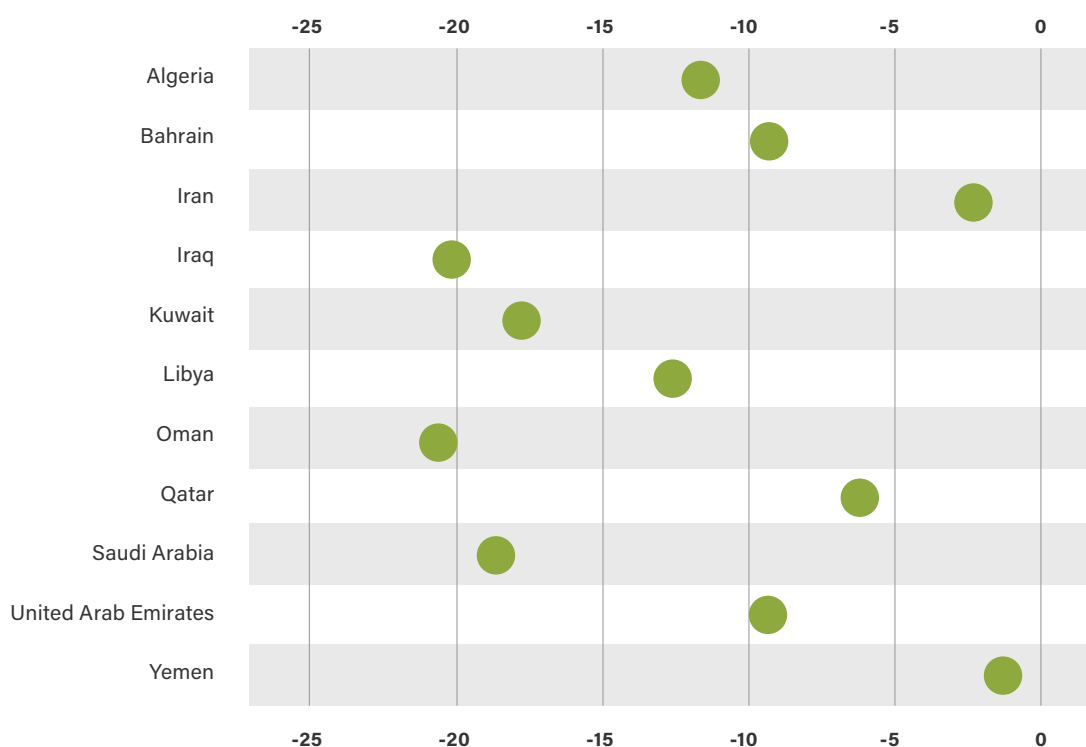
Dealing with the recent volatility in oil prices has not diverted oil exporters from the longer-term task of preparing their economies for the post-oil era. This is becoming a priority for governments across the region, which are in general pursuing three routes: diversifying, cutting subsidies, and attracting private investment.

Diversification strategies are at the heart of oil-exporting economies' long-term strategic planning. Lower oil prices have caused budget deficits to swell, to the extent that they now represent more than 50 percent of GDP in most countries in the region (see Exhibit 3).¹⁹ These growing budget deficits have prompted governments to redouble their efforts to export a broader range of goods and services. Oil importers already have more diversified export bases and are better integrated into global value chains. They are currently shifting their focus towards improving the quality of their exports.

EXHIBIT 3

Impact of Lower Oil Prices on Fiscal Balances, 2014–2015*

Percent of GDP



Source: IMF, 2016

* Change in fiscal balance due to the projected drop in oil prices between 2014 and 2015.

Governments in nearly every oil-exporting country in the region are cutting subsidies for fossil fuels, electricity, gas, and water to keep budget deficits under control. In 2016, MENA's governments offered a disproportionate fraction – 48 percent – of the world's total energy subsidies.²⁰ These contribute to many of the region's development and environmental challenges, as well as soaking up public funds. Reforming fossil fuel subsidies has therefore become a top priority for policymakers. The United Arab Emirates has essentially eliminated fuel subsidies. Oil importers Morocco, Egypt, and Jordan started reforming their subsidies as early as 2014 and are now beginning to tie local fuel prices to world energy prices instead of setting a fixed domestic fuel price.²¹ As a result of reducing fossil fuel subsidies and other reforms, these governments have been able to increase their spending on health, education, and social protection.

"It now takes an average of 17 days to start a business in the Middle East and North Africa, compared to 43.5 days in 2003."

Governments across MENA have made steady progress in business reforms, making it easier for private sector SMEs to operate. The result is an explosion in the number of start-ups in the region, and an entrepreneurship ecosystem that now matches the global average.²² Since 2016, 11 of the region's 19 economies have implemented nearly two dozen reforms, many of which were aimed at helping entrepreneurs start a new business.²³ As a result, it now takes an average of 17 days to start a business in the region, compared to 43.5 days in 2003. In Morocco, for example, it took 35 days to start a business 15 years ago, compared to only nine days now.²⁴ Kuwait established a one-stop shop for new business owners and improved the online process for registering a business. The number of institutions in the region that support entrepreneurs was two-and-a-half times higher in 2015 than in 2010, growing from 183 to 463.²⁵

The economic visions that are currently being rolled out by several of the more developed oil-exporting governments – such as the United Arab Emirates' UAE Vision 2021, Oman 2020, Bahrain's Economic Vision 2030, and Saudi Vision 2030 – are giving the private sector a more important role. Increased business involvement will help attain these countries' goals of improved competition among the regional countries, diversified economies, and lower dependence on oil. The region's oil importers are also introducing roadmaps to improve government efficiency, economic development, and innovation. In addition to its economic agenda, Egypt Vision 2030 also focuses on social and environmental issues with special attention to specific segments of the society including youth, women and people with disabilities.

“There have been major improvements in healthcare in the Middle East and North Africa; life expectancy at birth increased from 62 years in 1970 to 77 years in 2012.”

On the social front, a number of human development measures have dramatically improved across MENA in the span of a single generation. There has been evident progress in education, with improvements in school enrolment and literacy rates. For example, 94 percent of adults in Saudi Arabia are literate today compared to only 8 percent in 1970.²⁶ There have also been major improvements in healthcare, increasing life expectancy at birth by an average of 24 percent across the region, from 62 years in 1970 to 77 years in 2012.²⁷ Saudi Arabia has seen a particularly dramatic increase in life expectancy, from an average of around 53 years in 1970 to more than 75 years in 2015.²⁸ The overall prevalence of undernourishment in the region is now well below the global average. In Kuwait, the percentage of the population considered to be undernourished dropped from nearly 40 percent in 1991 to 5 percent in 2015.²⁹

Since 2000, the region's women in particular have benefited from these developments and from ambitious constitutional and institutional reforms aimed at strengthening women's status in the region.³⁰ Female literacy across the region has risen rapidly to meet the 2015

global average of 80 percent.³¹ In Jordan, for example, the literacy rate for women has reached nearly 100 percent.³² Female enrolment in post-secondary education has soared, generally surpassing that of male students, and women slightly outnumber men in tertiary education across the region.³³ In Qatar, nearly seven times as many women as men are enrolled in university and it has one of the highest female enrolment rates in the world.³⁴ Women's employment also rose by 18 percent across the region between 1991 and 2011, especially in the expanding public sectors.³⁵ In Saudi Arabia, 21 percent of women had joined the labour force by 2016, doubling their rate of participation in just a few years.³⁶

Pockets of vulnerability

Alongside these economic and social gains, remaining pockets of vulnerability still challenge economic, social, and environmental progress in some areas across the region. Regional conflicts have restricted growth in the countries directly and indirectly involved. Disputes in Iraq, Yemen, and Syria have led to mass migration and created large refugee populations in neighbouring countries; of the 10 countries hosting the highest number of displaced citizens in 2015, four were in MENA.³⁷ The invasion of Iraq in 2003 and subsequent instability displaced 4.9 million citizens by 2015.³⁸ The ongoing civil wars in Yemen and Syria displaced 2.6 million and 11.7 million citizens respectively by 2015.³⁹ Increased fighting in Libya in 2015 almost doubled the number of displaced Libyans by the end of that year to more than 434,000.⁴⁰ In 2016, it was estimated that some 8.7 million people in Syria had been internally displaced.⁴¹ These four conflict-affected countries – Iraq, Libya, Syria, and Yemen – also battle more corruption and human rights violations than other countries in the region.

“An additional 26 million young people are expected to enter the region's labour force by 2022.”

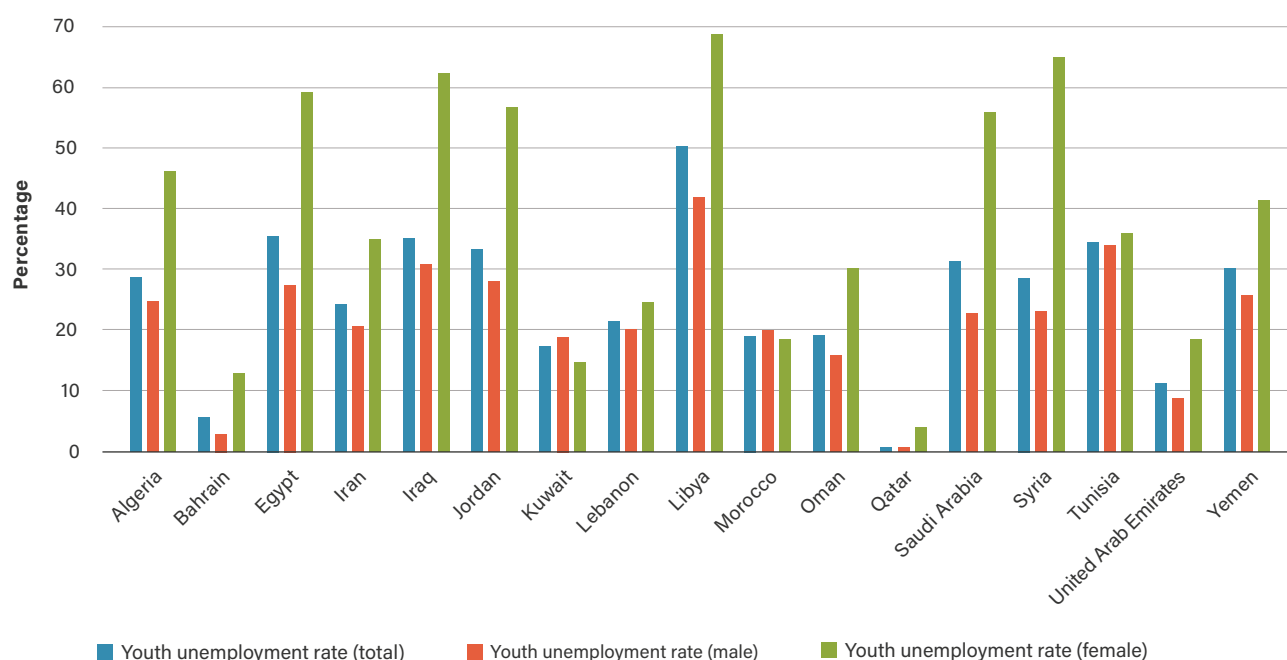
Unemployment in the region is stubbornly high, especially among young people, which contributes to unequal living standards. The decline in the number of public sector job vacancies has not been offset by an equivalent increase in private sector jobs. The region's young people are particularly vulnerable to unemployment and related social exclusion and poverty. More than 50 percent of MENA's population is under the age of 25, the greatest share of young people the region has ever seen.⁴² The large youth presence in the region is a crucial reality that governments must factor into their national planning. In 2014, youth unemployment in the region reached nearly 30 percent, and many of the young people, aged 15–29, often work in vulnerable jobs in the informal sector.⁴³ An additional 26 million young people are expected to enter the region's labour force by 2022.⁴⁴ Overall, more than 30 percent of people in the region are dissatisfied with their living standards and many still do not have access to healthcare and quality education.⁴⁵ Economic growth needs to increase much faster across MENA to create good jobs and raise living standards for all.

“Women in the Middle East and North Africa who have some level of post-secondary education are more likely to be unemployed than women who do not.”

Women’s economic participation and career advancement opportunities are lagging behind the significant improvements in women’s education in the region. Unusually, women in MENA who have some level of post-secondary education are more likely to be unemployed than women who do not. In Jordan and Egypt, unemployment rates in 2012 for the most highly educated women exceeded 60 percent and 40 percent respectively.⁴⁶ Young women, facing the double burden of age and gender discrimination, are more likely to be unemployed than young men (see Exhibit 4).⁴⁷ Women are also paid less on average than men for equal work. In Egypt, for example, the wage gap between men and women is up to 22 percent.⁴⁸

EXHIBIT 4

Youth unemployment in MENA⁴⁹



Source: Labour Market (KILM) database, accessed April 2016

On the environmental front, the MENA region is particularly vulnerable to the effects of climate change because it already suffers from scarce water resources and extensive aridity. It also has long coastlines threatened by rising sea levels. Pressures on natural and physical systems are expected to intensify as temperatures increase and precipitation decreases. This will add to stresses on agriculture and increase demand for cooling systems and energy generally. Managing scarce freshwater resources and ensuring people have access to clean water and sanitation is a particularly large challenge throughout the region.



Muslim woman studying. Photo credit: © Kagemusha / Adobe Stock

2. THE GLOBAL GOALS AND WHY THEY MATTER FOR MENA'S BUSINESS LEADERS

In light of the region's burgeoning spirit of enterprise and the challenges it faces, this report offers MENA's forward-thinking business leaders a compelling, sustainable, and rewarding model for growth and social development. The model is based on pursuing strategies in line with the UN Global Goals. These 17 Global Goals and their 169 component targets – formulated through collaboration with governments, businesses, and civil society around the world – are a guide to practical actions that will protect our planet's resources, promote prosperity, and leave no one behind (Exhibit 5).⁵⁰ Aiming for the UN Global Goals offers a practical and rewarding strategy for businesses across the region to rise to these challenges.

EXHIBIT 5

The 17 UN Global Goals for Sustainable Development



Research presented in *Better Business, Better World*, published by the Business and Sustainable Development Commission in January 2017, identified the 60 most significant business opportunities related to pursuing the Global Goals in four industry systems worldwide: food and agriculture; cities; energy and materials; and health and well-being (Exhibit 6). (For an explanation of the four systems, see Box 1. *Quantifying the business opportunities linked to Global Goals*.)

EXHIBIT 6

60 biggest market opportunities related to delivering the Global Goals

	 Food and Agriculture	 Cities	 Energy and Materials	 Health and Well-Being
1	Reducing food waste in value chain	Affordable housing	Circular models - automotive	Risk pooling
2	Forest ecosystem services	Energy efficiency - buildings	Expansion of renewables	Remote patient monitoring
3	Low-income food markets	Electric and hybrid vehicles	Circular models - appliances	Telehealth
4	Reducing consumer food waste	Public transport in urban areas	Circular models - electronics	Advanced genomics
5	Product reformulation	Car sharing	Energy efficiency - non-energy intensive industries	Activity services
6	Technology in large-scale farms	Road safety equipment	Energy storage systems	Detection of counterfeit drugs
7	Dietary switch	Autonomous vehicles	Resource recovery	Tobacco control
8	Sustainable aquaculture	ICE vehicle fuel efficiency	End-use steel efficiency	Weight management programs
9	Technology in smallholder farms	Building resilient cities	Energy efficiency - energy intensive industries	Better disease management
10	Micro-irrigation	Municipal water leakage	Carbon capture and storage	Electronic medical records
11	Restoring degraded land	Cultural tourism	Energy access	Better maternal and child health
12	Reducing packaging waste	Smart metering	Green chemicals	Healthcare training
13	Cattle intensification	Water and sanitation infrastructure	Additive manufacturing	Low-cost surgery
14	Urban agriculture	Office sharing	Local content in extractives	
15		Timber buildings	Shared infrastructure	
16		Durable and modular buildings	Mine rehabilitation	
17			Grid interconnection	

Many companies across the region have already recognised the business benefits of pursuing sustainable development. Pursuing the Global Goals opens up new business opportunities and potential efficiency gains, driving innovation and enhancing reputations. The growing body of evidence showing that better sustainability performance means better financial performance is steadily gaining traction with investors. In a review of 200 studies on sustainability and corporate performance, 90 percent found that high environmental, social, and governance (ESG) standards reduced companies' cost of capital, and 80 percent showed a positive correlation between stock price performance and good sustainability practices.⁵¹ A 2014 McKinsey & Company study found that 44 percent of sustainable business leaders cite growth and new business opportunities as reasons for tackling sustainability challenges.⁵²

"The closer the world gets to achieving the Global Goals, the better business becomes."

Companies can use their reputation for sustainability to attract and retain employees, consumers, and business-to-business customers as well as investors. A reputation for sustainable development also helps companies secure their 'licence to operate' in different areas. Companies that have embedded sustainable practices in their business model are already thriving and delivering attractive returns to shareholders. So why should they now go further and align their activities with the pursuit of all the Global Goals? Because the closer the world gets to achieving the Global Goals, the better business becomes.

Achieving the Global Goals by 2030 is an ambitious vision. But for responsible, forward-looking business leaders, it's a vision that offers significant growth by solving the region's biggest problems. As more and more businesses choose that vision as their roadmap to growth, general confidence in reaching the Global Goals will grow, creating powerful incentives for companies, governments, and other stakeholders to plan and invest accordingly. As this unstoppable force gathers pace, more companies will compete for the opportunities unlocked by creating a future that is environmentally stable and socially inclusive. Businesses anticipating that future in the strategic choices they make today are more likely to thrive.

"Aligning business and government strategy with the Global Goals will open up an economic prize for the region worth more than US\$637 billion by 2030."

Aligning business and government strategy with the Global Goals will effectively reframe MENA's social and environmental challenges as economic growth and development opportunities. Our research estimates that it will open up an economic prize for the region worth more than US\$637 billion by 2030, not to mention untold social benefits.⁵³

Across the region, business pioneers are already using innovative business models and technology in line with the Global Goals to unlock sustainable opportunities (see the case

study examples throughout this report). Many of these innovators are using one or more of the game-changing and largely digitally enabled business models that have developed over the past decade, incorporating the sharing economy, lean services, the circular economy, big data, and new social enterprises. These can be adapted to capturing market opportunities in line with the environmental and social Global Goals.

Indeed, more than 400 companies throughout MENA have already adopted the 10 principles of the UN Global Compact (UNGC), a guide to sustainable business behaviour for companies around the world.⁵⁴ However, more than 65 percent of the region's UNGC business participants are located in just three countries: Egypt, Lebanon, and the United Arab Emirates. Other companies across the region can follow the lead of these pioneers by incorporating the Global Goals into their core growth strategies, value chain operations, and policy positions, whatever the scale of their business.

Business as usual will not be enough to deliver all the potential benefits of pursuing the Global Goals; businesses must make sure the jobs they create offer decent pay, working conditions, and training. Nor will disruptive innovation by a few sustainable pioneers be enough to drive a shift across the region; the whole sector has to move. Over the next 15 years, driving system change in line with the Global Goals and in collaboration with sector peers will be an essential, differentiating skill for world-class business leaders. It means shaping new opportunities, pre-empting the risks of disruption, building new public-private partnerships, and renewing business's licence to operate.

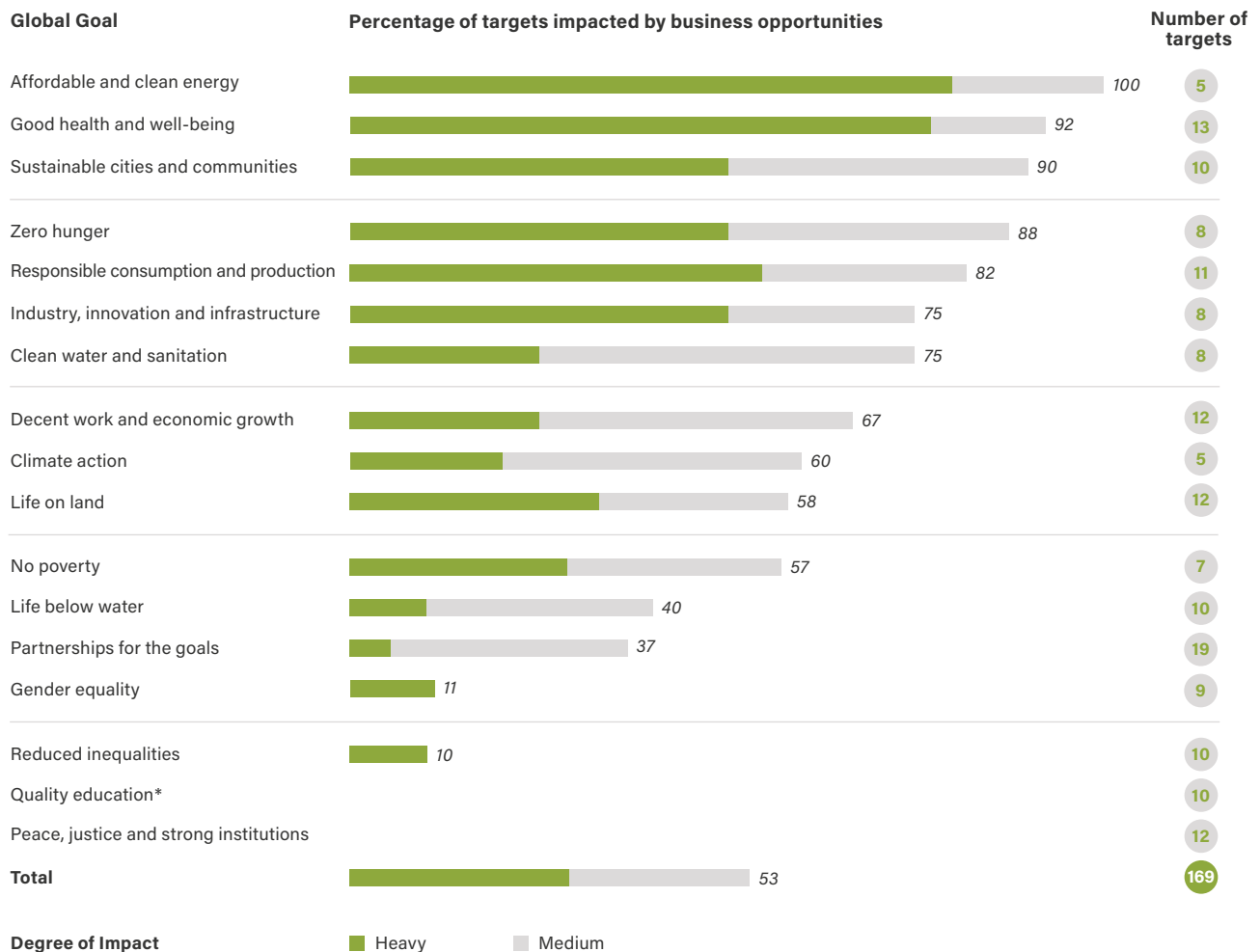
"If businesses in the Middle East and North Africa choose not to embrace the Global Goals, the cost of its economic, social, and environmental burdens will continue to grow."

If businesses in MENA choose not to embrace the Global Goals, the cost of those pockets of vulnerability described above will continue to grow. Societies will become less stable and less equitable, the environment will be irreversibly damaged, and political risks will rise. Increased volatility will weaken business conditions and further curtail growth. Governments will be forced to enact strong regulations in an attempt to avert the worst effects of the compounding social and environmental challenges.

The private sector cannot afford to ignore the Global Goals, which offer a compelling growth strategy for individual businesses, for business generally, and for the world economy. In turn, the Global Goals need support from businesses; unless private companies seize the market opportunities the Global Goals open up and advance progress on the whole Global Goals package, the abundance on offer won't materialise. Our analysis shows that private sector activity will be crucial to delivering more than half of the 169 Global Goal targets worldwide (Exhibit 7).

EXHIBIT 7

Business opportunities significantly impact more than half of the Global Goals targets



Source: Literature search; AlphaBeta analysis

* Not directly impacted as this analysis covered only four systems: food and agriculture, cities, health and well-being, and energy and materials.

This report makes the case for business leaders in MENA to pursue the Global Goals, drawing on research findings and case studies particularly relevant to the region. The next section of the report details major market opportunities for sustainable business-led growth across MENA.



Affordable Housing Communities providing Balanced Living Environments in Malaysia. Photo credit: Red Sea Affordable Housing

3. MAJOR MARKET OPPORTUNITIES OPENED UP BY DELIVERING THE GLOBAL GOALS IN MENA

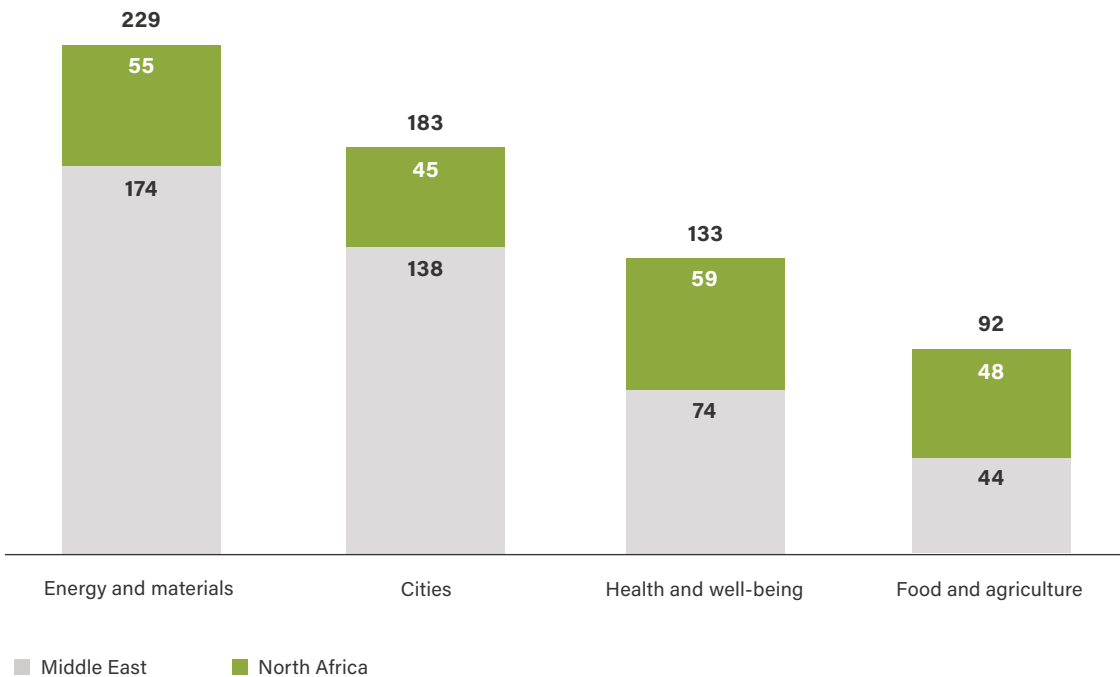
The Business and Sustainable Development Commission has previously identified US\$12 trillion in annual business opportunities that will open up worldwide for the private sector if it delivers the Global Goals in four systems: food and agriculture; cities; energy and materials; and health and well-being.⁵⁵ These categories were chosen for their economic impact and relevance to achieving the Global Goals. (See Box 1. *Quantifying business opportunities linked to Global Goals* for an explanation of the methodology.) In MENA alone, our research shows that by 2030, the 60 largest opportunities created by achieving the Global Goals could generate business revenues and savings worth more than US\$637 billion (Exhibit 8).⁵⁶

EXHIBIT 8

The business opportunities identified in four systems alone will be worth more than US\$637 billion in MENA by 2030

Size of incremental opportunity in 2030*

US\$ billions; 2015 values



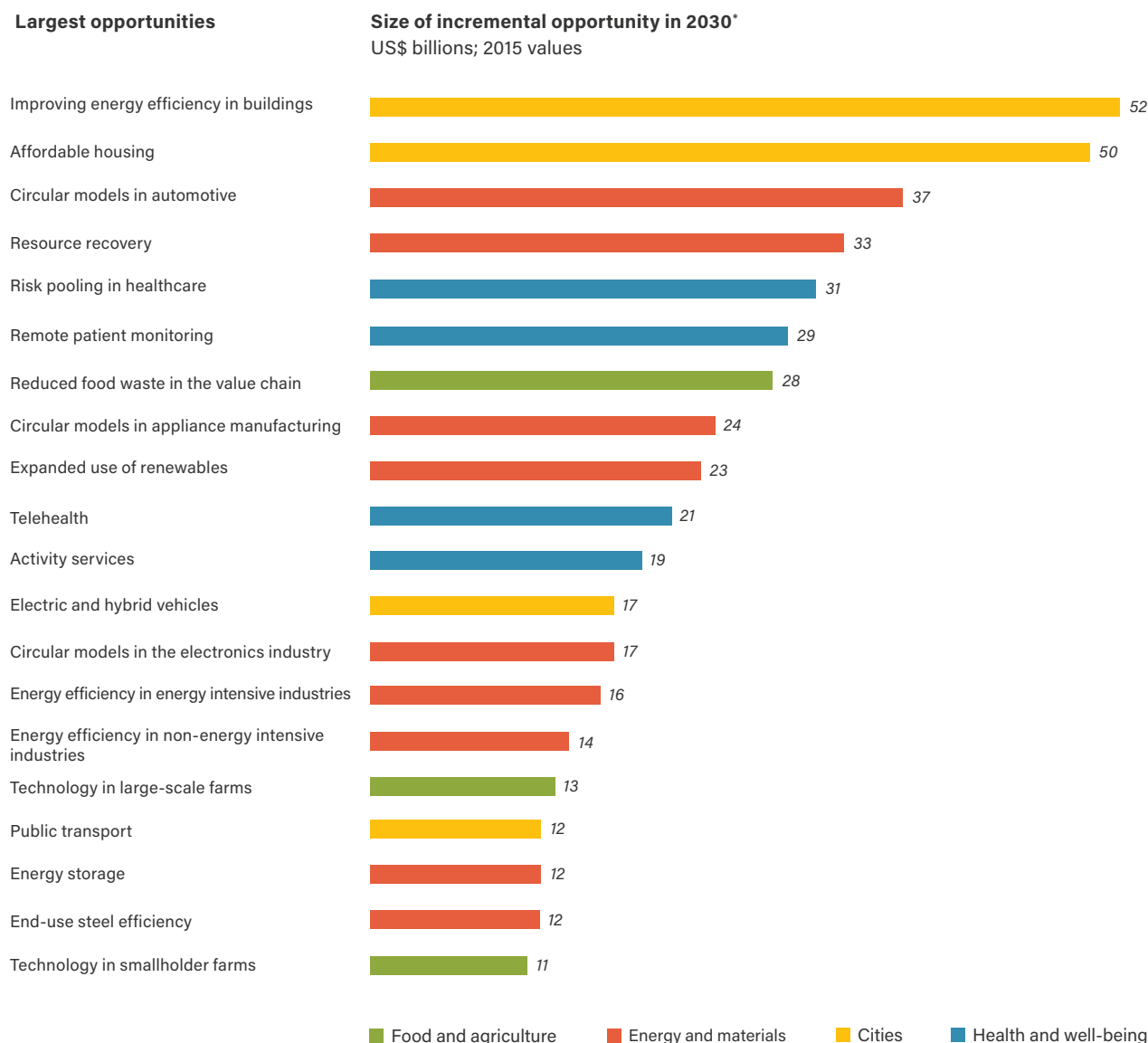
Source: Literature search; Alphabeta analysis

*Based on estimated savings or projected market sizings in each area.

The 20 largest opportunities account for nearly 75 percent of this prize (Exhibit 9). These are (1) improved energy efficiency in buildings; (2) affordable housing; (3) circular models in the automotive industry; (4) resource recovery; (5) risk pooling in healthcare; (6) remote patient monitoring; (7) reduced food waste in the value chain; (8) circular models in appliance manufacturing; (9) expanded use of renewables; (10) telehealth; (11) activity services; (12) electric and hybrid vehicles; (13) circular models in the electronics industry; (14) improved energy efficiency in energy-intensive industries; (15) improved energy efficiency in non-energy-intensive industries; (16) technology in large-scale farms; (17) public transport; (18) energy storage; (19) end-use steel efficiency; and (20) technology in smallholder farms.

EXHIBIT 9

The 20 largest opportunities account for nearly 75 percent of the total US\$637 billion prize in MENA



Source: Literature search; AlphaBeta analysis

* Based on estimated savings or projected market sizings in each area. Only the high-potential opportunity is shown here.

The distribution of these business opportunities varies across MENA countries and sub-regions (Exhibit 10). In the Middle East, energy efficiency in buildings presents the largest business opportunity at US\$40 billion, reflecting commercial and residential buildings' high share of the total electricity demand from temperature control and electricity use. In North Africa, risk pooling in healthcare presents the biggest opportunity at US\$31 billion, reflecting the population's low health insurance coverage today.

EXHIBIT 10

Distribution of business opportunities across MENA*



* North Africa: Algeria, Egypt, Libya, Morocco, and Tunisia; Middle East: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen.

The total economic prize for pursuing the Global Goals will be bigger than the estimated US\$637 billion available from opportunities in these four areas. More value can be released from other sectors critical to sustainable development, notably information and communications technology (ICT), education, and consumer goods. Globally, these

sectors could add a further 66 percent to the overall US\$12 trillion opportunity, identified in the global Better Business, Better World report. Economic gains from achieving all the social Global Goals will add substantially to the total prize the private sector could share in. Achieving gender parity alone could add between US\$12 trillion and US\$28 trillion to global growth by 2025. Better health and education will increase labour productivity. Reduced social inequality and environmental stress will reduce political uncertainty, lowering business risks and multiplying returns on investment. And pricing the actual costs of environmental damage – such as those caused by climate change – into these value projections increases the true size of the prize by a further 40 percent. Seen in this light, the Global Goals offer a compelling growth strategy for individual businesses, business generally, and the world economy.

In the following sections, we explore some of the high-potential opportunities in each of the four systems, drawing on research findings and case studies particularly relevant to the region.

Box 1. Quantifying business opportunities linked to Global Goals

To understand the business opportunities, we focus on four ‘industry systems’, which we define as areas of economic activity with common value drivers. For example, the food and agriculture industry system embraces all the economic activities that deliver value while providing food to consumers, from fertilisers to farm production, logistics, and retail. We focus on industry systems rather than traditional business sectors because the generally narrower definition of business sectors fails to capture the dynamic changes in the business landscape that pursuing the Global Goals could trigger, particularly in related value chains. Based on criteria such as economic impact, geographical relevance, and importance for achieving the Global Goals, we prioritised the following four industry systems:

- **Cities** – including vehicles and transport-related sectors, housing, construction, and utilities;
- **Energy and materials** – including mining, oil and gas, renewable energy, power generation, and durable goods;
- **Food and agriculture** – including food production, fertilisers, distribution, and retail; and
- **Health and well-being** – including pharmaceuticals, primary and secondary care, gyms, prevention, and well-being.

Our research team engaged extensively with industry and academic experts from each industry system, and consulted industry reports and academic literature to identify and estimate the size of the major opportunities for the private sector. The researchers established that these opportunities will be worth at least US\$25 trillion globally by 2030. Some of the benefits of implementing the Global Goals, such as increased workforce participation through gender equality, are diffused across the economy. We focused instead on areas that generate specific opportunities for businesses. The opportunities we identified are based on existing commercialised technology, though we note that many important opportunities that relate to the Global Goals will arise from technologies that are not yet known or are at an embryonic stage in their development.

The monetary figures in this report value what the annual opportunity will be in 2030, using 2015 US dollar figures, rounded to the nearest billion. The figures are based on estimated savings (such as the value of land saved from improving smallholder yields) or market size (such as food market demand from low-income consumers who move out of extreme poverty). In each case, we have measured the incremental size of the opportunity in a Global Goal versus a business-as-usual (BAU) scenario. For example, the opportunity to improve smallholder farm yields is calculated as the productivity improvement expected from implementing the Global Goals above that expected in a BAU scenario.

The Global Goals scenarios are based on achieving all relevant Global Goals targets by 2030, and assuming that the rise in the average global temperature will remain at or below 2 degrees Celsius by the end of the century. They do not build in carbon pricing or other externalities, except for forest ecosystem services, where carbon pricing is a principal revenue source. The BAU scenarios are derived from existing policies and policy announcements. Where possible, we have used multiple sources for each opportunity to generate a range of values. The estimates are based on a bottom-up microeconomic perspective and do not take into account interaction and general equilibrium effects.

A. Energy and materials

The region's energy system faces demand and regulatory challenges. A fast-growing regional population has caused demand for energy to rise by about 5 percent each year since 2000. Rising energy demand is a particular problem for the many MENA countries that do not have fossil fuel reserves. These countries have relied increasingly on expensive and polluting imports. Several have struggled to keep up, leading to regular – and crippling – blackouts, such as those in Egypt, for example.⁵⁷ By 2050, MENA's demand for energy will increase by 114 percent,⁵⁸ although an estimated 28 million people in the region currently lack access to reliable electricity.⁵⁹ With urbanisation and migration, peak power demand is estimated to triple in the next 20 years from 40 gigawatts (GW) to 120 GW.⁶⁰

“The expansion of renewable energy, combined with more stringent climate regulations, could put at risk returns on capital invested in fossil fuels.”

At the same time, the expansion of renewable energy could drastically slow down growth in demand for fossil fuels. Combined with more stringent climate regulations, this could put at risk returns on capital invested in fossil fuels in the region. The Middle East is home to five of the top 15 oil-exporting countries in the world: Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. In 2010, the Gulf Cooperation Council (GCC) economies – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates – had 37 percent of global proven oil reserves and 23 percent of global proven natural gas reserves.⁶¹ Global regulatory interest in reducing the more than US\$400 billion in fossil fuel subsidies around the world could further reduce demand by increasing end-user prices.

Expanding renewable energy and adopting sustainable patterns of production that reduce waste and improve energy and resource efficiency – as set out in the Global Goals – are likely to transform energy demand and manufacturing processes worldwide. Regulations that extend manufacturers' responsibilities for the waste their products generate will accelerate the transformation. Circular models based on recycling and remanufacturing may displace linear production models in durable goods and automotive industries, driving changes in product design. 'Low-visibility' supply chains will be replaced by more traceable systems that encourage sustainability reporting. Advanced lightweight and high-strength materials will improve production efficiency, reducing waste and energy use. The drive for greater energy efficiency is likely to lead to process changes across traditionally energy-intensive industries such as steel and cement, as well as less-energy-intensive sectors.

“Shifting energy and materials onto a sustainable development pathway could lead to the emergence of disruptive business opportunities worth US\$229 billion in the Middle East and North Africa by 2030.”

Adopting the United Nation's Global Goals agenda will increase businesses' chances of success in this context by shifting energy and materials onto a sustainable development pathway. Such a transformation will have a major impact throughout the energy and materials value chains. It could lead to the emergence of disruptive business opportunities worth US\$229 billion in the MENA region by 2030, where the most significant opportunities by value will be in circular business models and renewable energy.⁶²

Circularity in the automotive, appliance, and electronics industries

Worth US\$78 billion per year by 2030

Circular business models based on recycling, refurbishment, and remanufacturing may displace linear business models worldwide, driving changes in product design and value chains. The automotive sector will be particularly affected. Although introducing circular business models is not easy and the concept is not yet widely practised in the MENA region compared to North America and Europe, some circular ventures are already underway in the region's automotive and appliance sectors and there is scope for many more to emerge.

To ensure collection and refurbishment capture as much value as possible, manufacturers may need to shift away from selling goods outright to leasing them to consumers or making performance-based arrangements to put consumers at ease with their purchases. Warranties and insurance should partly assuage their concerns, and will also encourage manufacturers to design products that last longer.

“The Middle East and North Africa region has the potential to recover 900,000 tonnes of metal by 2020.”

Overall, MENA has the potential to recover 900,000 tonnes of metal by 2020,⁶³ and there is already interest in refurbishing. Though still in a nascent stage, the Emirate of Sharjah in the United Arab Emirates opened its first centralised refurbishing plant in 2013.

Vehicle sales in MENA are likely to grow by 5 percent between 2014 and 2020; Saudi Arabia and the United Arab Emirates will dominate with a combined market share of 76 percent.⁶⁴ By 2020, more than 1 million vehicles across the region will reach their end of life.⁶⁵

Worldwide, collection rates for end-of-life vehicles (ELVs) are generally very high – in the EU, for example, exceeding 70 percent.⁶⁶ Some of these ELVs are exported as second-hand stock, and the rest are sent from automobile retailers to auto dismantlers and scrap metal companies to be processed for reuse and recycling. However, recycling ELVs into base materials is energy-intensive and results in loss of value. Since the end of a vehicle's life is usually brought about by the failure of only a small number of weakest-link components, it is possible to significantly extend the life of a vehicle by refurbishing and remanufacturing more of these components. This increases the efficiency of material and energy use, and raises the residual value of the vehicles. On the other hand, shifting to this kind of circular model is challenging. Vehicle designs need to anticipate disassembly, and capital is required to build centralised refurbishment plants.

Many domestic appliances, electronics, and industrial machines are also well suited to circular models. Worldwide appliance collection rates are lower than for vehicles – generally below 50 percent – so the opportunity to capture more material for recycling and refurbishment is high. A washing machine, for example, typically contains 30–40 kilograms of steel, and a refurbished machine could reduce material input costs by 60 percent.⁶⁷

“In MENA as a whole, only about 5 percent of e-waste ends up being processed in the region.”

The estimated recycling rate of electronic waste (e-waste) in MENA is far lower than the global average of 15–20 percent,⁶⁸ even though the region generates a substantial amount of e-waste. The average United Arab Emirates resident generates 17.2 kilograms of e-waste annually.⁶⁹ Kuwait residents create the same amount, and Bahrain is next on the list at 16.4 kilograms per resident.⁷⁰ Egypt has the biggest stockpile of e-waste on the African continent, producing approximately 370,000 tonnes in 2014.⁷¹ In MENA as a whole, only about 5 percent of e-waste ends up being processed in the region; most is shipped to centres in India, China, or Southeast Asia.⁷² Not only are there few e-waste recycling facilities across the region, there is also a general lack of awareness around the potential dangers of e-waste toxins such as arsenic, cadmium, and mercury. (See Box 2. *Recycling e-waste in Egypt*.)⁷³

Although some countries have regulated e-waste systems, industry-wide collection and treatment systems require further development. To promote circular production, electronics manufacturers also need to shift away from highly integrated product designs towards more standardised and modular component design.

Box 2. Recycling e-waste in Egypt

Dr. WEEE (Waste Electrical and Electronic Equipment) is a collection model owned by Eco Integrated Industrial Solutions, a leading pioneer in the field of e-waste recycling, founded in December 2016. Dr. WEEE's CEO Essam Hashem saw the great potential in the e-waste refurbishment market in Egypt and across the MENA region. The region's consumers have relatively low purchasing power, so they tend to buy cheaper electronic products that have a shorter life span and less resale potential, producing proportionally more e-waste than in wealthier regions. As noted above, Egypt alone produced 370,000 tonnes of e-waste in 2014, even though it recycles 20 percent of its electronics, a relatively high proportion for the region.⁷⁴

Dr. WEEE raises awareness of the need to recycle, and encourages safe e-waste disposal through its online application. The company provides a comprehensive e-waste management service in Egypt, collecting, sorting, dismantling, and recycling as many components as possible while ensuring that the process from start to finish is as environmentally friendly as it can be.⁷⁵ Once collected, electronic devices are brought to Dr. WEEE's small facility in Cairo, where trained workers dismantle, sort, and classify the waste. Materials that cannot be recycled are sent to a specialised landfill in Alexandria, and components containing valuable materials – such as gold, silver, copper, and platinum – are exported to Turkey and Belgium for processing.⁷⁶

The Dr. WEEE app, launched in March 2017, enables users to arrange for their e-waste to be collected, and provides cash-back offers or vouchers that users can spend on items from associated companies. Essentially, the company offers consumers enough value for something that would otherwise be worthless to them that they are willing to go to the trouble of handing over their e-waste.

Following its success in Egypt, Dr. WEEE now operates in Lebanon, Jordan, Saudi Arabia, and the United Arab Emirates, and has plans to expand into Morocco, Ghana, and Uganda.

Expansion of renewable energy

Worth US\$23 billion per year by 2030

Expanding renewable energy – including solar, hydro, wind, and geothermal – can increase energy generation and reduce local pollution while slowing down demand for fossil fuels and mitigating the global effects of climate change. The renewable energy industry is expanding quickly worldwide. Annual global investment in solar photovoltaics (PV) has been between US\$100 billion and US\$150 billion over the past five years.⁷⁷ IRENA's REmap scenario forecasts that renewables' share of energy generation could increase to 45 percent by 2030, compared to 30 percent currently.⁷⁸ Under this scenario, wind would more than quadruple its share of the global generation mix – from 3 percent in 2013 to 14 percent in 2030 – and solar PV's share would rise from less than 1 percent in 2013 to 7 percent in 2030. This expansion represents a great opportunity for renewable generators and equipment manufacturers.⁷⁹

The economics of renewable generation are improving as renewable technology costs fall, a trend that is expected to continue. Between 2010 and 2015, the costs for new utility-scale solar PV cells declined by two-thirds and are expected to fall an additional quarter by 2020. Solar, along with wind, has emerged as the most attractive investment among renewable energy technologies and will likely draw the bulk of future investment, especially given the potential for costs to ease further.

Two particularly promising areas for solar investment have recently opened up. The first is low-cost residential and commercial solar generation, the growth of which will depend on the availability of low-cost financing for customers, reactions from regulated utilities, and the competitiveness of power tariffs compared with traditional grid pricing. The increase of distributed renewable energy devices such as rooftop solar PV panels will allow consumers to sell energy back into the grid. The second area for potential growth are when large-scale plants are able to provide power at their peak capacities. The key to commercialising this area, as with other renewable opportunities, is to lower deployment costs by using ‘lean’ elements – such as prefabricated components, automation, and aerial site assessments – to speed up design prototyping, and collaborating with engineering, procurement, and construction companies to share cost-saving ideas.

Countries in MENA are rethinking their energy mix and searching for ‘greener’ alternatives, prompted by costly and unpredictable energy prices, rapid growth in energy demands, and increasing climate impacts. In Saudi Arabia, the government plans to spend US\$109 billion on solar energy infrastructure by 2040. By 2020, Kuwait and Oman aim to get 10 percent of their energy from sustainable sources, and Egypt aims to generate 20 percent of its power from renewable sources by 2022.⁸⁰ Morocco has set the goal of producing 52 percent of its energy requirements from renewables before 2030 (see Box 3. *Solar energy in Morocco*).⁸¹

“Nearly every country in the Middle East and North Africa has enough sunlight to support a thriving solar industry. In fact, enough rays hit the region to power the entire planet.”

Fortunately, the region’s potential to expand renewable energy is extensive. Although only a few nations in the region have very large oil and gas reserves, nearly all have enough sunlight to support a thriving solar industry. In fact, enough rays hit MENA to power the entire planet, studies say.⁸² Parts of the Middle East have 30 or fewer cloudy days per year and 100 millimetres or less of annual rainfall, so the region is perfect for generating solar electricity. Saudi Arabia enjoys normal irradiation of 2,500 kWh/m²/year, with Qatar following closely behind. By comparison, the United Kingdom may only receive the annual equivalent of 1,100 kWh/m²/year on the sunniest summer days.

Box 3. Solar energy in Morocco

Morocco is one of the largest energy importers in the MENA region; imports provide 95 percent of its energy needs.⁸³ And yet the country's excellent solar and wind resources make it the region's largest potential market for renewable energy. The Moroccan government's 2010–30 energy strategy aims to raise the share of renewable energies in the country's energy mix from 15 percent to 42 percent by 2020, with solar, wind, and hydro power contributing 14 percent each. Ideally, the total share of renewables will increase to 52 percent of the country's energy mix by 2030.

The Moroccan Solar Energy Programme – known as Noor, which means 'light' in Arabic – will help the country reach its renewable energy goals. The Noor programme aims to produce at least 2 GW of electric power from solar energy by 2020, saving an estimated 1 million tonnes of oil equivalent a year, and avoiding up to 3.8 million tonnes of CO₂ emissions a year.

The first of five solar complexes planned under the Noor programme is located in the desert outside the city of Ouarzazate. When it began operations in February 2016, the first power station of the Ouarzazate Noor Solar Complex, Noor I, provided 160 MW of solar electricity to 650,000 local people from dawn until three hours after sunset. When the Noor II and Noor III power stations are completed in 2018, the entire Ouarzazate Noor Solar Complex will provide 580 MW of solar electricity capacity – enough to power more than a million homes – from what is expected to be the largest solar complex in the world.⁸⁴ The Ouarzazate Noor Solar Complex will also reduce global CO₂ emissions by an estimated 760,000 tonnes annually, or 19 million tonnes over 25 years.

In addition to this US\$3.9 billion solar plant in Ouarzazate, more partnerships between the government and private sector are being established across the country to bolster Morocco's renewable energy industry, with hopes of exporting energy to Southern Europe.

Egypt's solar industry has already attracted investments totalling US\$1.8 billion for 1.4 GW across 16 solar PV projects (see Box 4. *Financing renewable energy investments in Egypt*).⁸⁵ In March 2017 in Lebanon, the Gemayel Frères manufacturing plant installed a 300 kilowatt peak (kWp) solar PV system comprising 966 roof-integrated PV panels spread over four sheds. Energy production at the plant emits no greenhouse gases and reduces CO₂ emissions by around 300 tonnes each year compared to a plant that runs on standard grid power supply. In Jordan, private firms have already built 12 solar plants and are in the process of building at least seven more, to become the largest collection of privately owned power plants in the region.⁸⁶ In the United Arab Emirates, Masdar, Total, and Abengoa Solar are designing, constructing, and operating the concentrated Abu Dhabi Shams 1 Solar Power Station Project, which has an exceptionally large power output of 100 megawatts (MW).⁸⁷

"Coasts around the Mediterranean and Red seas are continually buffeted by relatively steady high winds, making them ideal locations for wind farms."

At the same time, MENA's coasts – especially around the Mediterranean and Red seas – are continually buffeted by relatively steady high winds, making them ideal locations for wind farms.⁸⁸ Egypt's Zafarana Wind Farm Project is the first large-scale wind farm in the country and among the world's largest onshore wind farms, estimated to produce 1,400 gigawatt hours (GWh) a year upon completion.⁸⁹ Jordan also has high-potential wind energy resources, with annual average wind speeds exceeding 7 metres per second – more than 25 kilometres per hour – in some areas.⁹⁰

With all of the projects planned throughout MENA, the region is predicted to have 24.1 GW of wind and solar capacity by the end of 2020 – almost six times the 4.2 GW installed as of 2016 – which will require US\$27.4 billion in investments.⁹¹ Countries across the region already have renewables projects underway, but additional reforms and investment in energy storage solutions and transmission, among other things, will be needed to ensure the development of renewable energy infrastructure is as sustainable financially as it is environmentally. Even existing power networks will need to be significantly expanded and upgraded to facilitate the extra renewable capacity.⁹²

Box 4. Financing renewable energy investments in Egypt

EFG Hermes Private Equity is focusing on investing in clean energy regionally and supporting a cleaner future. In 2016, EFG Hermes Leasing launched Egypt's first alternative energy lease finance programme with one of the country's largest private off-grid solar energy integrators. The vendor partner programme is the first of its kind in Egypt, providing finance for businesses that supply sustainable solar energy to address the country's growing demand for energy from alternative sources. The leasing arrangement is particularly well suited to the nation's underserved agriculture sector, helping expand Egypt's base of arable land outside the Nile Delta region, which in turn eases pressure on Nile water and eliminates the need to draw energy from less environmentally friendly sources. The programme is the most aggressive financing scheme for solar stations in the Egyptian market and aims to prove that solar energy is an accessible and profitable alternative, minimising barriers to entry for individual farmers and agribusiness corporations alike.

In October 2017, International Finance Corporation and a consortium of nine other lenders⁹³ pledged US\$653 million to finance construction of the Benban Solar Park project near Aswan in Egypt – the largest private sector financing package for a solar PV facility in MENA to date. The financing will help 13 private companies build and operate power plants at the site; when complete, the Benban Solar Park will house a total of 32 solar power plants. By mid-2019, when all the plants are scheduled to be powered on, they will together be capable of generating a total of 1,650 MW of electricity. The entire complex is expected to avoid 2 million tonnes of greenhouse gas emissions a year, the equivalent of taking about 400,000 cars off the road.

B. Cities

By 2030, 60 percent of the world's population will live in cities, up from about 54 percent today, and cities will grow by more than a billion people over the next 15 years.⁹⁵ Over the next two decades, nearly all the world's net population growth is expected to occur in urban areas, adding around 1.4 million urban dwellers – close to the population of Stockholm, Sweden – each week.⁹⁶ In MENA, population growth is already among the highest in the world, and by 2050 the region's population is projected to reach 604 million.⁹⁷ In 2015, 57 percent of MENA's population lived in urban areas, making it more urbanised than East or South Asia.⁹⁸ This already large urban population is expected to expand rapidly to 70 percent by 2020 and 75 percent by 2050, when nearly 400 million people will be living in the region's cities.⁹⁹

“By 2050, nearly 400 million people in the Middle East and North Africa will be living in cities, posing challenges to the value chains supporting the region's urban mobility, infrastructure, and housing.”

Urbanisation is a crucial driver of economic growth; no country has ever climbed from low-income to middle-income status without a significant shift of its population from rural areas into cities. The reasons include the scale benefits available to producers of goods and services when they operate in larger cities, as well as the higher wages consumers typically receive as they shift from farming to jobs in urban manufacturing and services. Consumer spending growth has been on the rise in the region since 2005 thanks to rising incomes. This is especially the case in North Africa, where affluent consumers (those better off than the middle class) now represent more than one in 10 households.¹⁰⁰ Housing and transportation services will absorb much of this spending growth in the coming years.¹⁰¹

Despite these immediate benefits, urbanisation also poses challenges to the value chains supporting mobility, infrastructure, and housing.¹⁰² Cities account for nearly two-thirds of global energy consumption and generate more than 70 percent of greenhouse gas emissions.¹⁰³ By 2025, one-third of the urban population worldwide – 440 million urban households – could lack affordable, adequate housing.¹⁰⁴ To illustrate, Saudi Arabia alone will require an additional 1.5 million homes by 2030 to keep up with expected population growth.¹⁰⁵

Dependence on automobiles is increasing in the region, and passenger car use has grown by almost 10 percent per year over the last 25 years. This in turn has led to traffic congestion that results in average speeds of less than 10 kilometres per hour in major cities like Cairo and Tehran. Congestion along Cairo's 11 main roads costs the Egyptian economy US\$2 billion a year in lost competitiveness,¹⁰⁶ yet motor vehicles sales are growing faster in Egypt than anywhere else in the region.¹⁰⁷ Fuel subsidies encourage people to drive and contribute to exceptionally low energy efficiency for private and public transport in the region; average fuel consumption per vehicle in countries with fuel subsidies is more than double the average in countries without them.

Growing cities will require large investments in infrastructure that has a lighter environmental footprint. More systemic planning of city spaces – spaces integrated with road network design features that ease traffic flows, such as roundabouts and arterial roads – can contribute to better air quality, less congestion, and less urban sprawl. The MENA region has already started experimenting with the idea of fully sustainable cities. For example, Saudi Arabia's Neom – new operating model – is a planned business and industrial zone that links with Jordan and Egypt near the Red Sea. The US\$500 billion megacity, spanning 26,500 square kilometres, is expected to be 100 percent powered by renewable energy and served by automated vehicles and vertical farms by 2025.

“Shifting city development onto a sustainable pathway in the Middle East and North Africa will be worth US\$183 billion in 2030.”

The UN's Global Goals agenda proposes shifting city development onto a sustainable pathway. This will have a big impact on the value chains supporting mobility, infrastructure, and housing in MENA cities, leading to a number of disruptive business opportunities, which together will be worth US\$183 billion in 2030.¹⁰⁸ The biggest opportunities are in more energy-efficient buildings, affordable housing, and public mobility systems.

Energy efficiency in buildings

Worth US\$52 billion per year by 2030

Globally, the building sector accounts for around one-third of total final energy consumption and more than half of all electricity demand.¹⁰⁹ The generally high energy consumption of buildings in MENA makes energy efficiency in buildings the largest opportunity in the region. To illustrate, more than half of Saudi Arabia's peak summer power consumption is used on air conditioning, which is generated by burning 1 billion barrels of oil a year.¹¹⁰ Air-conditioned buildings may be essential in the region's extreme heat, but cooling systems need to become more energy-efficient.

Building energy efficiency can be improved through two main approaches: more efficient temperature control systems and smarter use of electricity. Regarding the first, retrofitting smart system control technology in existing buildings and installing it from the outset in new buildings can improve the performance of heating and cooling systems. An alternative is to expand district heating and cooling systems instead of installing individual heating and cooling systems in each building. The additional step of using cogeneration, which feeds electricity generated by heating and cooling systems into the district grid, could improve building efficiency by up to 90 percent.¹¹¹ Regarding the second approach, switching to efficient lighting, appliances, and electronics can reduce overall demand throughout the network.¹¹² (See Box 5. *Kuwait City employs IoT technologies.*)

“The key to substantially reducing a building’s energy use is to analyse the building as an entire integrated system.”

However, significant innovations and significant amounts of capital will be required to help replace existing heating, cooling, and lighting appliances in city buildings. The key to substantially reducing a building’s energy use is to analyse the building as an entire integrated system, rather than focusing on incremental improvements to individual energy-using devices.¹¹³ The culture of buying equipment based solely on the initial cost – without taking account of the operating expenses (energy consumption) throughout its useful life – continues to be standard practice in MENA.

These opportunities suggest the need for various new business models, from developing energy-efficient building components through to providing energy services. Among the latter, there is potential for specialised energy services companies and utilities that provide funds for upfront investment and deploy their expertise in identifying and capturing energy-efficiency savings. Energy performance contracts between investors and service companies can help overcome capital constraints by tying payments for loans to improve a building’s energy efficiency to the savings shown on the property or utility meter, instead of to the homeowner. While the United States and Europe are currently leading in this area, energy service companies that provide end-to-end power-efficiency services for owners of homes and businesses are just emerging in MENA.

“By fully implementing ‘green’ building regulations, the improved energy efficiency in residential buildings could reduce electricity consumption by 20–30 percent.”

A number of countries in the region have already adopted standards and labels for appliances. Several countries have also adopted building codes, such as mandatory thermal insulation for new buildings; solar energy codes; and energy efficiency specifications for administrative and residential buildings as well as hospitals and hotels.¹¹⁴ By fully implementing ‘green’ building regulations, the improved energy efficiency in residential buildings could reduce electricity consumption by 20–30 percent.¹¹⁵ In July 2017, Al Mansour Holding Company completed an energy reduction initiative by switching to LED lights in all of its administrative and factory buildings, and in its 23 warehouses and 90 supermarket stores across Egypt. This reduced the company’s overall energy consumption by approximately 30 percent – approximately 25 million KW per year.¹¹⁶

Box 5. Kuwait City employs IoT technologies

The Middle East is beginning to realise the exponential benefits that can be achieved with Internet of Things (IoT) technologies. IoT revenues in the sub-region are expected to increase at a compound annual growth rate (CAGR) of 21 percent, to total more than US\$14.3 billion by 2020.¹¹⁷ Cities are particularly well placed to adopt IoT solutions as they build smart sustainable municipalities to tackle water shortages, traffic, and safety issues. Popular solutions include smart metering, smart building, and traffic management.

In Kuwait, IoT adoption is on the rise in many industries, including manufacturing, transport, and energy, paving the way for other IoT applications and the development of more smart city infrastructure. The infrastructure in the region needs to be upgraded to enhance water and electricity efficiency, to enable the collection of revenues, and to support the distribution of energy consumption over time.

The nation's capital, Kuwait City, began implementing its latest IoT solutions in 2017, in an effort to become a smart sustainable city. The project focuses on preserving critical resources (electricity and water) and includes the biggest smart metering project in the Middle East. These efforts will lead to lower transmission and distribution costs, reduced CO₂ emissions, and a transition to renewable solar energy across the region. The Kuwaiti government is pushing towards integrating and deploying IoT technologies throughout the country with various infrastructure developments, which is attracting various international and regional companies to the market.

Huawei received an investment license in Kuwait through the Kuwait Direct Investment Promotion Authority for nearly US\$1.7 billion to develop and enhance the ICT sector in the country by providing innovative and integrated enterprise solutions, advanced technologies, and professional services in communications systems and equipment.¹¹⁸

Affordable housing

Worth US\$50 billion per year by 2030

Cities are key centres for promoting social inclusion and economic dynamism. However, the growth of cities can run counter to social inclusion, particularly as housing becomes increasingly expensive. The MENA region needs at least an additional 3.5 million affordable homes, for which demand is expected to increase sharply over the next five years.¹¹⁹ The greatest shortfall in the region is currently in Egypt, where more than 1.5 million additional houses are needed, and the average home price is 18 times the typical annual salary – compared to 2.8 times in the United States.¹²⁰ Even Morocco, with one of the most mature affordable housing sectors in the region, has an estimated shortfall of 600,000 homes.¹²¹ The vast majority of new developments in the region have been luxury homes aimed at more affluent households. In Dubai in 2015, only 22 percent of new residential units were for low- or middle-income households, and the number of affordable residential units is decreasing.¹²²

“The Middle East and North Africa region needs at least an additional 3.5 million affordable homes, and the demand is expected to increase sharply over the next 5 years.”

Affordable housing is very high on the agenda of many MENA countries, and could represent a significant opportunity for the global construction and housing finance industries. In Egypt, there are an estimated 351 slums that officials deem unsafe for those who live in them. As a result, the government is on a mission to relocate an estimated 850,000 slum dwellers to new, affordable high-rise housing.¹²³ The Tahya Misr Fund development in Cairo – a multi-year, multi-phase project – has been underway since early 2016. The project is estimated to cost 1.5 billion dollars and will create around 20,000 new affordable housing units for more than 100,000 people. (See Box 6. *Red Sea Affordable Housing*.)

Turning this gap into an opportunity will depend on three broad initiatives. The first will involve pursuing ‘inclusionary’ housing development strategies that increase the supply of low-cost housing by giving developers planning concessions in return for providing affordable housing units. The second is lean construction practices, which lower the costs of building by adopting industrial techniques such as prefabricating components offsite and assembling them onsite, and standardising major operations like structural design and finishing elements.

“For housing to be affordable in MENA, construction costs would need to fall by between a third and a half.”

For housing to be affordable in MENA, construction costs would need to fall by between a third and a half. Some developers in the United Arab Emirates are turning to modern technologies such as 3D printing to change the way homes are built.¹²⁴ This allows homes to be constructed much more quickly and cheaply than those built using traditional labour-intensive construction techniques. The third initiative is low-cost property management, which reduces the cost of running homes. Techniques include retrofitting units with more energy-efficient appliances, and integrating repair and maintenance services in a one-stop shop.

Box 6. Red Sea Affordable Housing

Saudi Arabia is facing an affordable housing crisis with the city's population growth continuing to surpass the supply of economic dwelling and the global lull in oil prices forcing the government to cut back on projects. Already, more than 60 percent of Saudis do not own their own home and, with the population booming, the pressure is set to grow.¹²⁵ By 2020, Saudi Arabia is expected to have a shortfall of 2.4 million homes.¹²⁶ The country needs more affordable and rapid building solutions.

Saudi venture philanthropy initiative Red Sea Affordable Housing (RSAH) was set up to satisfy affordable housing demand. Still in its early days, the organisation is based on the premise that building affordable housing is a chance to make money and satisfy a profound social need. Apart from being keen to serve the domestic market, the company is also looking further abroad. The core regions in which Red Sea operates form a significant chunk of the global affordable housing gap, estimated to be about US\$650 billion.¹²⁷

RSAH is not acting alone. Aware that making a dent in the housing figures will need developers to be more productive, innovative, and collaborative than ever before, the company is looking to harness global experience and technological know-how. With the Industrial housing arm of RSAH, Red Sea Housing Services' (RSHS) acquisition of AM Modular in 2016, the company looks to work hand-in-hand with RSHS to utilise its innovative modular building technology that allows construction of multi-level steel frame modular building blocks up to 12 levels with significant cost and time savings.¹²⁸

Q&A: William Ali Mills, CEO, Red Sea Housing Services

Why affordable housing?

Despite the Universal Declaration of Human Rights encompassing decent housing as a basic human right, there remains a significant gap in the availability of affordable dwellings across major markets, with the shortage rising every year. In addition, rising construction costs make unaffordable housing a growing challenge in cities and nations across the globe. For this reason, a contemporary approach to community housing has never been more pressing, and meeting demand in a cost-effective manner will require heightened innovation. In the absence of a global market leader, the affordable housing sector presents itself as a ripe and lucrative business opportunity, while addressing a profound social need. This is precisely the mindset the private sector must have if it is to improve the state of the world.

How does affordable housing fit into the larger strategic vision for Red Sea?

Red Sea comprises three business units: industrial housing, affordable housing, and building materials. We have set 2020 as a deadline to become the global leader in industrial building solutions. We are aiming to create a strong presence in the global affordable housing market, and to become a leading provider of building materials in the MENA region.

To achieve these ambitious goals, we consider how all elements of a building's design work together to meet the needs of its owners, its occupants, and the environment. Only by considering the total building design will we be able to create buildings that are resource-efficient, and affordable to build, operate, and live in. In realising this, Red Sea has launched a multitude of business streams, products, and

internal initiatives spanning sustainable buildings and services, 'green' paints, and efficient resource procurement. On the affordable housing front, we offer a range of housing solutions and services to the private and public sectors, from integrated communities to stand-alone housing. We use high-quality, cost-efficient, and rapid building methods, contributing to the affordability and quick delivery of a sustainable community.

In what other ways is Red Sea aligning with the Global Goals?

Red Sea understands that our activities have a significant influence on the economic, environmental, and social well-being of the communities in which we operate. So although we use our modular building concepts to achieve an affordable solution, we will never compromise on building sustainability – we work to minimise the overall impact on the environment and society. For example, we encourage the use of solar panels, sun pipes, recycled water solutions, and local labour and resources in all our projects.

We pride ourselves on being market leaders in our industry, and in doing so we always want to ensure we are bringing new solutions to the market.

Public transport in urban areas

Worth US\$12 billion per year by 2030

Urbanisation in the region has led to a rapid growth in the use of cars and demand for urban transport. Transport infrastructure will need to evolve to sustainably manage access and respond to changing mobility systems, and the private sector will play an important role in meeting growing transport needs. In modern cities with more medium- and high-density housing, public transport is the most effective solution to urban mobility needs. Mobility patterns associated with unplanned urban expansion and increased private motor vehicle use are a major source of greenhouse gas emissions. According to the International Energy Agency, limiting average global temperature increases to 2 degrees Celsius by 2050 will require a 21 percent reduction in carbon emissions from the transport sector.¹²⁹

The rapid growth in the number of vehicles in MENA's major cities has put substantial pressure on urban transport systems. As improving access to public transport becomes a priority, the construction of roads for private vehicles will slow in favour of bus, rail, and metro systems. These systems will have a significant effect in reducing poverty because they improve access to labour markets and reduce harmful emissions that cause global warming. If a quarter of passenger kilometres globally were shifted from light-duty vehicles to a mix of public transport modes, energy consumption would fall by 5 Quadrillion British Thermal Units (QBTUs, or 'quads') in 2030 – the equivalent of 225 billion tonnes of coal.¹³⁰ Investment in public transport has also been shown to cut congestion costs and reduce household transport expenditure by 20 percent.¹³¹

“Private vehicle use has increased to the point that it accounts for 50 percent or more of all motorised transport in some cities in the Middle East and North Africa.”

Efficient and reliable urban transport systems are crucial if MENA is to sustain high economic growth. Private vehicle use has increased to the point that it accounts for 50 percent or more of all motorised transport in some of the region’s cities. In Beirut, Lebanon, private vehicles account for almost two-thirds of urban trips.¹³² The share of different modes of transport in urban trips across MENA varies significantly by country; in some cities, passenger trips account for as little as 20 percent of urban trips, while typically they account for less than 60 percent throughout the region.¹³³ Informal public transport – shared taxis and minibuses in Morocco, Cairo, and Damascus; vans in Algeria; and other such services in Beirut and Amman – has emerged as a new urban public transit mode.¹³⁴

“While there are relatively few mass rapid transit systems currently in operation, most countries in the Middle East now have new metro systems in the proposal, planning, or construction phase.”

High-speed electric trains and electrified urban public transport are other examples to follow. In addition to having a smaller environmental footprint, they have a smaller social footprint because of their positive effect on social inclusion. Israel’s inter-urban rail system has experienced a 35 percent increase in the number of passengers since 2010.¹³⁵ Iran plans to expand the Tehran Metro from its current 152 kilometres to 430 kilometres by 2028. And while there are relatively few mass rapid transit systems currently in operation, most countries in the Middle East now have new metro systems in the proposal, planning, or construction phase, representing more than 33,000 kilometres of mainline routes and 3,000 kilometres of metro rail tracks.¹³⁶ One of the most ambitious projects currently underway is the Riyadh Metro in Saudi Arabia, with six lines and 85 stations due for completion in 2019.¹³⁷ (See Box 7. *Public transport in Dubai with IoT technologies.*)

Box 7. Public transport in Dubai with IoT technologies

Dubai is preparing to host World Expo 2020, which should attract 20 million visitors – a temporary population boost that will put great additional pressure on the city's resources and traffic networks. The city launched the Smart Dubai Initiative to relieve these pressures by focusing on sustainability and efficiency as part of its economic development.

Dubai's Road and Transport Authority (RTA) is transforming the city's transportation sector using IoT technologies. Dubai RTA chose Ericsson to provide an innovative regulatory monitoring system (RMS) that will combine integrated cloud-based solutions such as advanced transport analytics; cloud-connected vehicles; and fleet management products, services, and processes. The collaboration started in October 2016 and the rollout will continue until April 2018.

Dubai RTA provides a transport system driven by the needs of the people who move around the city, and this transformation is the foundation for the future of Dubai's smart transport system. The new RMS will provide greater consistency, transparency, and security for Dubai RTA, and will help ensure high standards of service for public and private facilities in Dubai.

When the services are fully launched, they will have a major positive impact on the Dubai RTA's end user experience. In this way, the project aims to increase quality of life for the population of Dubai while contributing to the Smart Dubai vision.

There is a great opportunity for the private sector – app builders, data processing companies, cab cooperatives, phone carriers and makers, and payment systems providers – to build and operate public transport systems in close partnership with governments, to provide a better transportation service. Much of the new urban public transport systems in the Middle East will be tendered to the private sector for designing, building, or financing, or for operation and maintenance contracts. (See Box 8. *Mobility shared across MENA*.)

Box 8. Mobility shared across MENA

Another mobility option is to introduce car sharing to the transport mix. This makes more intensive use of each vehicle while reducing the total number of cars on the road. Founded in the United Arab Emirates in 2012, Careem has rapidly evolved into a leading app-based ride-hailing service throughout MENA, reshaping the region's 'people logistics'. Today, Careem operates in more than 80 cities across the Middle East, Pakistan, and Turkey – notably Dubai, Riyadh, Cairo, Doha, and Karachi – and has grown by double- and triple-digits each year since its inception. The company's aim is to become the biggest mover of people and things in MENA, as well as in Pakistan and Turkey.

MENA presents a compelling market opportunity for car-sharing business models. It promises a combination of relatively large, dense, and rapidly growing urban populations; substantial smartphone penetration; increasing urban employment opportunities; often poor urban infrastructure; and heavy

traffic. This creates a US\$40 billion ride-hailing opportunity as more people choose to switch from privately owned cars to car-pooling initiatives. Ride hailing has already lowered the cost of mobility, provided new ways for cities to scale up mass transit, and built efficient transport ecosystems, which is especially critical in cities with the poorest infrastructure and worst congestion.

Careem's technology gives consumers access to point-to-point transport without the associated costs of owning a car. It gives passengers various options to cater to their individual travel needs and payment preferences, and provides each customer with an estimate of the trip fare before they book, allowing them to manage their budgets.

Careem currently employs more than 500,000 drivers – known as Careem Captains – across the region. Its mission to simplify and improve the lives of people in the region has a social dimension. For example, the company increases women's opportunities to make a living by enabling them to enrol as Careem Captains. Following King Salman's recent decree allowing women to drive cars in Saudi Arabia, Careem has already recruited and trained 30 women who will form the first cohort of drivers for Careem's 'Captinah' option. This option will be available to Saudi passengers in June 2018, allowing women and families to choose a car driven by a female chauffeur. Careem has plans to hire 100,000 women captains once the law is in effect.

The company's mission extends to simplifying and improving the lives of people in all communities in the Middle East, which includes millions of refugees struggling to re establish their lives. To support this important group, Careem has launched a car option named UNHCR, after its partner, the United Nations High Commissioner for Refugees. Funds raised through this service go towards empowering and improving the lives of refugees.

Careem has benefited from a first-mover advantage on a number of initiatives, enabling it to achieve significant brand recognition within its markets. As a unique, home-grown regional champion that is thriving in a competitive environment, the company has attracted funding from global investors, including The Abraaj Group, Kingdom Holding Company, and Rakuten.

Q&A: Mudassir Sheikha, CEO and co-founder, Careem

What was the inspiration for creating Careem?

After having returned to the region after working and living abroad, Magnus Olsson (Chief Xperience Officer and co-founder) and I wanted to find a way to help the Middle East 'leapfrog' towards better living. Careem was born the eve of Ramadan 2012, with the aim of impacting people's lives through transportation – employing thousands, solving mobility challenges, and most importantly, creating an institution that people would be proud to work at and be inspired by.

Today, Careem has become more than we could have ever anticipated, becoming a rare 'unicorn' in the Middle East – or as we call ourselves, a 'uni-camel' – employing thousands of people, and impacting millions of lives across the region. While we are humbled by the opportunities Careem Captains, customers, and colleagues have given us, we also recognise the immense responsibility that comes with our hard work, and that responsibility is one we are dedicated to meeting through our impact on people and our region.

How is Careem contributing to the Global Goals?

The name Careem, which means 'generous' in Arabic, was an explicit choice – a signal to our community about who we wanted to be from day one. Careem's fundamental mission is to simplify and improve lives and build an institution that inspires.

Decent work and job creation is at the heart of Careem. We now have more than 500,000 Captains across our markets, and we are firmly committed to creating a million jobs in the region by 2018. The power of our platform is that anyone can be a Careem Captain and become an entrepreneur. Deciding how and when they want to work allows for flexibility that unlocks greater human potential. Additionally, we do everything we can to make sure Careem Captains are empowered and have access to opportunities, especially educational opportunities. Working with Boston Consulting Group, we created a mini-educational series to build Captains' financial literacy capacity and maximise their access to 'soft' skills.

Secondly, our region faces important challenges in congestion, traffic, air pollution, and greenhouse gas emissions. One of our solutions, car-pooling – *sawa* in Arabic – has the massive potential to reduce traffic congestion and carbon emissions.

Thirdly, gender equality in the workplace and women's empowerment are also issues we take to heart, and are especially important for our sector. We're proud that almost 50 percent of recent hires at the general manager level and above have been women, and 50 percent of our colleagues at the base of the organisation are women. This year, we have ramped up our efforts to ensure the hiring process is gender-balanced, using a version of the Rooney Rule, where at least one female candidate is shortlisted and one female senior leader is on the interview panel. We have also increased paternity and maternity leave for colleagues; are constantly tracking and improving rates of women in leadership; continue to report on our diversity statistics to our board; and are training leaders on how to recognise and avoid unconscious bias.

Our gender efforts also extend to our Captains; we have female Captains in Egypt, Pakistan, and Morocco, with plans to expand to more markets. We have created products exclusively for women and families. In Saudi Arabia, we launched a car type designated for people with disabilities, and we are counting the days until we can include 'Captinahs' in Saudi Arabia once women begin to drive, truly unlocking more employment opportunities for women.

Finally, our responsibility extends beyond our day-to-day business. To truly attain the Global Goals of sustainable development for our region, it is essential that we include refugees. We are committed to elevating the issue of supporting refugees and finding creative solutions to providing dignity and empowerment. Careem's customers can use our app to directly support vulnerable refugees in the MENA region, and all funds raised are donated to the UNHCR.

What has been Careem's impact so far?

Through our partnership with The Citizens Foundation, we created a car type to raise donations that would help provide quality education for underprivileged children in Pakistan and then we doubled every donation. The campaign raised PKR1.9 million (more than US\$18,000) for the cause. We recently

created another car type through our partnership with the Baheya Foundation in Egypt, to raise donations to support women battling breast cancer.

We have provided a safe transportation option for women throughout the region. In Pakistan, where there are limited secure options to get from one place to another, up to 60 percent of our customers are women. In Saudi Arabia, Careem is the biggest transporter of women to and from work. Over 70 percent of our customers are women – women who were previously not able to work but are now able to go to and from work, contribute to their families, and contribute to the economy. I can't think of a better example of a ride-hailing service making such a profound and transformative societal impact by addressing a transportation need.

Careem was never just about building a business; it is also about building an institution with real, tangible, and significant positive impact for our region.

C. Health and well-being

The health sector in MENA faces several challenges and opportunities related to research and development; inputs and devices; primary and secondary care; and lifestyle management. There will be rapid growth in demand for healthcare in the region over the next 15 years due to the combination of an ageing population, a rising consumer class, and the increased prevalence of chronic diseases such as cancer and diabetes.

There are large disparities in spending on healthcare and the provision of healthcare services across the region. At one extreme, Yemen's health situation is one of the most fragile in the world. More than 50 percent of the Yemeni population lacks access to the most basic healthcare and Yemen's total per capita health expenditure, at below US\$40 a year, is one of the lowest in the world.¹³⁸ In rural areas, more than two out of every three citizens have no physical access to healthcare facilities.¹³⁹ Only 22 percent of the rural population lives within 2 kilometres of an all-weather road, making access and transport to healthcare facilities extremely difficult.¹⁴⁰

At the other end of the scale, major improvements in Saudi Arabia's healthcare system have helped increase the life expectancy for Saudi people from nearly 53 years in 1970 to more than 75 years in 2015.¹⁴¹ Over this 45-year period, the government prioritised modernising medicine and improving the quality of physician training. The infant mortality rate plummeted as a result of far-reaching improvements in health practice. In 1960, there were 292 deaths per 1,000 live births; by 2015, that number had fallen to 13 deaths per 1,000 live births.¹⁴² In the past five years, the number of hospitals and clinics in the Saudi healthcare system has increased by 9.5 percent, and the Ministry of Health now organises the construction of 150 new medical centres a year in line with its 10-year plan to offer nation-wide integrated healthcare. Even so, the country's ageing population and increasing number

of patients suffering chronic diseases means there will continue to be a gap between demand for public healthcare and its provision.

“By 2030, almost 80 percent of deaths in the Middle East will result from non-communicable diseases or ‘lifestyle’ diseases, such as cardiovascular disease or cancer.”

The rise of non-communicable diseases in MENA is predicted to cost more than US\$68 billion by 2022. By 2030, almost 80 percent of deaths in the Middle East will be the result of non-communicable or lifestyle diseases such as cardiovascular disease and cancer. The high prevalence of unhealthy diets, smoking, and lack of physical exercise – a direct result of urbanisation and rising per capita income – are big contributing factors.

Obesity is becoming a major public health issue in the Middle East. A diet heavy in meat, carbohydrates, and sugar – combined with few opportunities for exercise – is taking a toll on the population.¹⁴³ Urbanisation and rapid economic development in the sub-region have also encouraged a more sedentary lifestyle, resulting in increased obesity in cities. For example, there is a 4 percent obesity rate among children living in rural southwestern Saudi Arabia. This contrasts with Riyadh or Ha'il, where sedentary lifestyles and high-fat fast-food consumption are common, and child obesity rates are 22 and 34 percent respectively.¹⁴⁴ More than half of boys aged 7–12 in Riyadh do not participate in even moderate levels of physical activity, and 81 percent of the city's adult males are inactive.

Government mandates for universal healthcare, cross-industry partnerships, increasingly digitised hospitals, and an emphasis on connectivity are paving the way for innovations in healthcare, as are hardware and software developments related to big data, machine learning, artificial intelligence, and IoT technologies. The United Arab Emirates healthcare sector is starting to make extensive use of IoT technologies. In recent years, both Abu Dhabi and Dubai have made it mandatory for employers to provide employees with health insurance, which has enabled the country to track patient information and maintain medical records using IoT and cloud technology. This has given medical centres and patients the benefit of data analysis, and access to medical records whenever they need it.¹⁴⁵

“Shifting health and well-being onto a sustainable development pathway could lead to the emergence of a number of disruptive business opportunities, worth US\$133 billion per year for the Middle East and North Africa region in 2030.”

The Global Goals agenda proposes meeting these profound challenges by shifting health and well-being onto a sustainable development pathway. This change will be transformative throughout the value chain, and could encourage the emergence of a number of disruptive business opportunities, worth US\$133 billion per year for MENA in 2030.¹⁴⁶ The following section discusses a few of these key opportunities in further detail.

Risk pooling

Worth US\$31 billion per year by 2030

Increasing the penetration of private, public–private, and community insurance schemes is an essential step towards making healthcare affordable and achieving universal healthcare coverage in line with the Global Goals. Each year, out-of-pocket payments push up to 5 percent of households in low-income countries below the poverty line, and require them to make inefficient economic choices such as selling their limited stock of assets or removing children from education.¹⁴⁷ Since the poor pay a disproportionate share of their income in unavoidable health costs, it is also an inequitable system.

In Yemen, treatment costs and cost sharing are major drawbacks to healthcare use, and few households have access to any type of prepayment scheme to cover health costs. Almost 30 percent of total expenditure on health is allocated for treatment abroad, but these benefits are enjoyed by relatively few better-off recipients.¹⁴⁸ The lack of any substantial social protection schemes against financial health risks in Yemen has led many citizens to form self-help groups and solidarity schemes.

Risk pooling helps to better distribute health risks across these communities. It often includes organised contracting functions that purchase healthcare on behalf of the individuals covered, which in turn encourages the development of higher-quality private sector providers. Wider use of risk pooling will require educating consumers about investing in their future health needs and building the analytical talent to operate risk pooling arrangements, especially given the lack of good-quality health statistics in many developing countries.¹⁴⁹

“Health insurance is one of the largest and fastest growing lines of business in the Middle East.”

Health insurance is one of the largest and fastest growing lines of business in the Middle East. In early 2014, Abu Dhabi and Dubai introduced mandatory health insurance, increasing health insurance penetration across the United Arab Emirates. In 2016, Qatar transferred health insurance responsibilities to private companies, requiring them to provide citizens with health insurance services.

Microinsurance, which brings affordable insurance to previously unreachable groups through micropayment options, is a nascent business model that is gaining momentum due to the large and currently untapped market (see Box 9. *Finding opportunities in digital finance inclusion*). Swiss Re estimates the market for ‘commercially viable microinsurance products’ to be 2.6 billion people globally, representing US\$40 billion in direct written premiums,¹⁵⁰ and Lloyd’s estimates a market of 1.5–3 billion policies at an annual growth rate of 10 percent.¹⁵¹ While these numbers cover demand for all insurance, most of the demand is for health and life insurance products.

Private sector firms have devised innovative digital payment methods to encourage more risk pooling. Wider access to mobile and internet services, even in developing and rural areas, is facilitating these digital business models. The new approaches combine more conventional insurance mechanisms with modern technologies, including digital distribution technology, big data, and blockchain. As of late 2016, mobile insurance start-up BIMA had almost 24 million customers across developing countries in Asia, Africa, and Latin America, which the company charges for monthly rolling insurance through their mobile subscription plans.¹⁵²

Box 9. Finding opportunities in digital finance inclusion

Between 2011 and 2014, 700 million people became account holders at banks or other financial institutions for the first time, reducing the number of 'unbanked' adults by 20 percent to 2 billion people.¹⁵³ In MENA, fewer than one in five adults hold a bank account (14 percent) and 67 percent of the population lacks access to formal financial services, turning instead to family and friends for loans.¹⁵⁴ In the Middle East, 20 percent of people reported borrowing from a store, while less than 10 percent borrow from a financial institution.¹⁵⁵

Access to finance is a fundamental factor affecting growth opportunities for small businesses. Globally, 27 percent of businesses identify access to finance as a major constraint.¹⁵⁶ These entrepreneurs often lack the collateral and track record to receive formal bank loans. In developing economies, it is estimated that around 70 percent of SMEs are either unserved or underserved by the formal financial sector.¹⁵⁷

Online peer-to-peer microlending and crowdfunding platforms can help SMEs to expand. Digitising the financial system could help 1.6 billion people access financial services in emerging economies, and increase the volume of loans offered to individuals and businesses by US\$2.1 trillion.¹⁵⁸ In Jordan, liwwa enables private investors to provide SMEs with access to finance. By late 2016, the start-up had channelled US\$2.5 million to 104 companies using an innovative credit scoring model.¹⁵⁹

Digital finance is gaining traction across MENA. This transformation has accelerated thanks to the emergence of new financial technology (fintech) applications that supply products and services in the industry, modifying the way businesses and consumers make payments, transfer money, obtain loans, trade assets, and manage their resources. Mobile apps can offer a low-cost way for people in remote or rural locations to make and receive payments on mobile devices, without having to open a bank account.

The region's young people are creating some of the most exciting disruptions to the financial sector. Since 2012, there has been an explosion in the number of fintech start-ups operating in MENA. Today the region boasts more than 250 fintech companies, compared to 20 in 2010. For example, Ideal Payments, founded in 2016, partnered with Iraq's largest remittance company and a Belgian mobile money service

provider to create the Taif eWallet app. The entrepreneurs behind the project, who have experience with Goldman Sachs and the Trade Bank of Iraq, aim to create a solution that allows unbanked users to receive their salaries in the app, pay fees, and send money to friends and family. The United Arab Emirates acts as the hub for fintech start-ups, hosting nearly 30 percent of the regional total.¹⁶⁰

There is still ample room for growth in digital financial services. In 2016, there were only 13.9 million mobile money accounts in MENA, compared to the 100.1 million in Sub-Saharan Africa.¹⁶¹ There has been particularly slow uptake in Egypt and Morocco due to already high formal banking penetration and regulatory constraints on mobile money.¹⁶²

Financial inclusion can be a particularly powerful driver of gender equality, a crucial area for progress given the global gap between genders in access to financial services. Promoting women's access to financial services, and to digital and property assets more broadly, is a key area where businesses can drive a better gender balance.

These fintech firms' business models and technological and strategic orientation provide the conditions to tackle two major obstacles that have prevented further progress when it comes to financial inclusion. The first is a perceived lack of demand, reflecting the absence of products adapted to users' needs. The other is high operational costs and a relatively low profit margin associated with serving excluded segments using traditional methods. With this in mind, several governments throughout the region are considering fintech as a key tool for reducing financial exclusion.

Remote patient monitoring

Worth US\$29 billion per year by 2030

The imperative to lower healthcare costs and achieve more accessible, sustainable health systems is increasing demand for remote health-monitoring systems, which can reduce unnecessary hospitalisations and make preventive care more effective. Using sensors that read patients' vital signs at home, nurses and doctors can be alerted to health problems before they worsen. Emerging 'mHealth' technologies include wearable patches that can diagnose heart conditions; sensors that monitor asthma medication intake and detect poor air quality; and glucose monitors that send diabetics' health data straight to their smartphones.¹⁶³ The McKinsey Global Institute estimates that by lowering the frequency of emergency room visits and unnecessary hospitalisations, remote monitoring could reduce the cost of treating chronic diseases by 10–20 percent.¹⁶⁴

Although the size of this opportunity is largest in the developed world where hospital costs are higher, it can also be important in developing countries where it allows better management of patients who have less access to care in remote areas. In MENA, particularly in Saudi Arabia, Kuwait, Oman, and Yemen, many who live in remote locations have limited access to healthcare facilities and quality care. Remote monitoring

can help reduce obesity, another regional challenge. Innovative diagnostic and monitoring technology can quantify weight changes and help make patients aware of their progress, potentially interrupting gradual weight gain.

“In the Middle East, 78 percent of patients are eager to use new health technologies for making healthcare decisions, believing that digital and mobile healthcare is the future.”

In the Middle East, 170 million people, or 53 percent of the population, own smart phones, and data connectivity is estimated to reach 330 million in the sub-region by 2020.¹⁶⁵ North Africa is also projected to obtain these penetration rates by 2020, thanks to the rise of more affordable smart devices. Consumers are already showing enthusiasm for digitally enhanced lives, with 78 percent of patients are eager to use new health technologies when they make healthcare decisions.¹⁶⁶ Personal fitness and well-being devices have become increasingly prevalent in the region since 2016.¹⁶⁷ In Saudi Arabia, 84 percent of consumers find technology important in managing their health and 14 percent already use wearable technology.¹⁶⁸ The United Arab Emirates is one of the top-ranked nations on the Philips Future Health Index, which examines the readiness of 13 countries to embrace the benefits of connected digital health systems and data sharing. The United Arab Emirates achieved the highest average scores on access to healthcare, integration of the current health system, and adoption of connected health technology devices and systems.¹⁶⁹ The mHealth industry in Israel has also taken off in recent years, both in funding and number of participants (see Box 10. *mHealth in Israel*).

Although demand for remote patient monitoring is rising quickly, there is no consensus on the ideal business model. This leaves an opening for entrepreneurial vendors to gain first-mover advantage in a competitive market.¹⁷⁰ An already common model is for vendors to form partnerships with stakeholders such as hospitals, governments, telecommunication companies, and insurance companies. For example, insurance companies are willing to provide remote monitoring devices and services to reduce the probability of hospitalisation claims.¹⁷¹ Some barriers include managing patients' acceptance of new forms of healthcare delivery, and privacy issues given the risk that the data collected via health monitoring could be abused.¹⁷²

Box 10. mHealth in Israel

Israel has around 400 companies operating in the digital health field, and total investments in Israel's mHealth industry hit US\$183 million in 2016 – a growth of around 30 percent on the previous year.¹⁷³ These companies offer a wide array of technologies, including wearable products that provide constant tracking and gather users' key biometric data. The information collected is analysed using big data and behavioural analytics, then used to provide health-improving insights and actions.

For example, Israeli-based company Healthymize created technology that turns smartphones, tablets, smart watches, and virtual home assistants into continuous health-monitoring devices. By analysing the human voice and breath during regular phone calls or other interactions with these devices, the artificial intelligence-based technology monitors voice-affecting conditions such as asthma, chronic obstructive pulmonary disease (COPD), heart failure, and mental diseases. Using signal processing and machine learning technologies that run in the background of users' phones, Healthymize technology can detect flare-ups early and alert the users' medical team to initiate treatment sooner.

In-home monitoring can reduce the number of emergency hospital visits and hospitalisations, resulting in significant cost savings for users and the healthcare system. Healthymize co-founder and CEO Dr. Shady Hassan saw the opportunity to improve patients' quality of life while significantly reducing the cost burden for patients' families and the healthcare system. The company recently won the 2017 connected health start-up competition held by mHealth Israel, the largest connected health community in the Middle East.

Activity services

Worth US\$19 billion per year by 2030

With increased emphasis on preventive care, the lifestyle sector will continue to grow. As a side effect of MENA's increased affluence, inactive lifestyles are becoming more prevalent, which leads to chronic diseases. The obesity epidemic and an ageing population have led to rising rates of related problems such as diabetes, cardiovascular diseases, and blood vessel blockage.

The lower activity levels and changing diets that drive increasing obesity rates are also related to urbanisation. Many people in MENA consider exercise to be a sport rather than something done with a group of friends or at home, and are not aware of the health benefits of being physically active. Another factor hindering exercise in the region is the extreme heat in the outdoor environment.

"Physical inactivity is one major factor leading to an increased prevalence of obesity, especially for women."

Physical inactivity is one major factor leading to an increased prevalence of obesity, especially for women. In Egypt, 75 percent of people do not participate in any vigorous physical activity.¹⁷⁴ In Qatar and Saudi Arabia, around 45 percent of women are obese – nearly double the rate of men.¹⁷⁵ The opportunities to exercise in public are extremely limited for women

living in many Middle Eastern countries due to cultural factors such as accepted dress codes and modest conduct.

The desire for healthier lifestyles and better management of non-communicable diseases could lead to the increasing use of gyms, and personal fitness equipment and technology. As governments – and private insurers – invest more in prevention to stem the rising costs of non-communicable disease treatment, gyms and fitness centres are likely to benefit from subsidies and incentives. Saudi Arabia wants to increase the ratio of individuals exercising at least once a week from 13 percent of the population currently to 40 percent by 2030. In July 2017, girls in Saudi Arabia were for the first time allowed to receive physical education lessons as part of the curriculum in public schools.¹⁷⁶ Fitness First Middle East already has a network of female-only gyms across the United Arab Emirates, Bahrain, Qatar, Jordan, and Kuwait, and most recently opened a gym in Saudi Arabia, where the government in 2017 began granting women-only gym licences. (See Box 11. *Raising awareness of health risks in Morocco*.)

Box 11. Raising awareness of health risks in Morocco

Morocco faces a ‘double disease burden’ of chronic and communicable diseases, the result of a population age profile where 12 percent of the population will be over 60 years of age by 2025. Morocco currently has only 27 oncology centres, so with over 30,000 to 40,000 new patients requiring treatment daily, many are untreated or maltreated.¹⁷⁷ Morocco has 0.9 Linac devices (a common machine used to administer radiation treatment to cancer patients) per million people versus the international standard of three per million people. The private sector needs to take the lead in increasing the country’s oncology and diagnostics capacity to bridge this gap.

In addressing the shortfall, *Oncologie et Diagnostic du Maroc* (ODM) focuses on scaling its services to serve patients across Morocco, enhancing care and the quality of treatment by employing accomplished medical professionals, using state-of-the-art medical technology, and emphasising world-class patient care standards. ODM, formed by The Abraaj Group in 2014, is the largest and first healthcare platform to offer oncology and diagnostics services in Morocco. In 2016, ODM served more than 34,640 patients and conducted more than 40,830 radiotherapy sessions and 6,503 MRI scans. Currently operating in Casablanca and Marrakesh, ODM is launching two additional centres in the cities of Tangier and Oujda, with plans to expand and reach the broader population in Morocco.

ODM launched Morocco’s first support group for cancer patients, the only centre in Africa to offer psychological support and treatment simulation to prepare patients for treatment, as well as onsite comfort care such as ‘beauty’ treatments for those going through chemotherapy. ODM also regularly hosts community outreach events to encourage healthier lifestyles and prevention of non-communicable diseases. ODM celebrates International Women’s Day by encouraging women to “eat well and live well”, and by conducting breast cancer awareness workshops. The centres also organise regular free blood drives, and each month ODM holds ‘scientific days’ for the public, where doctors explain the health risks of non-communicable and communicable diseases, as well as how to prevent, detect, and treat them. Community members attend a question-and-answer session with doctors, so they can gain a better understanding of disease causes and risk factors. This leads to better self-care, promotion of healthy

lifestyles, and adoption of preventive behaviours, playing a critical role in preventing and reducing non-communicable diseases. Patients' families are also encouraged to attend these sessions.

Q&A: Mohamed Elmandjra, CEO, ODM

The Abraaj Group formed ODM in 2014 and it is now the largest private healthcare platform in Morocco. Can you give us an overview of the healthcare challenges ODM is solving?

When mapping out oncology centres in Morocco, there is a real opportunity for ODM to make an impact. There are currently 27 oncology centres throughout Morocco, and only eight are managed by the private sector. The geographical distribution of these centres also reflects a significant disparity, and the lack of treatment options in remote areas puts significant pressure on cities to absorb more patients.

Our network currently comprises three centres – Clinic al Kindy, Clinic Menara, and Anoul Radiology Centre – where we offer a variety of cancer treatments, including radiotherapy, chemotherapy, brachytherapy, and iodine treatments. We are continuing to explore ways to further expand oncology and diagnostic services across Morocco, in main regions as well as underserved cities. One example of how we are addressing this is the new oncology and medical imaging centre we are building in Oujda, in northeast Morocco.

What has been ODM's impact so far?

In 2016, ODM served more than 34,000 patients, conducting more than 40,000 radiotherapy sessions and 6,503 MRI scans.

In the past three years, we have extended our services to include new oncology treatments such as bone marrow transplants. We have invested in state-of-the-art equipment to ensure our patients have the best care possible. We also focus on how we can use synergies, talent, and know-how across our network and through partnerships to ensure patients receive the best treatment possible.

From a social standpoint, key initiatives include improving patient safety and well-being, enhancing services, and lowering patient waiting times. We have developed world-class environmental, health and safety (EHS) practices and ensure compliance with them throughout our network. These are all steps we take to ensure continuously high standards of care.

We also focus on achieving prevention through regular community outreach efforts. For example, we recently launched Morocco's first support group for cancer patients, which offers psychological support, preparation for treatment, and onsite comfort care such as beauty visits for those going through chemotherapy. Other initiatives include our International Women's Day celebrations and breast cancer awareness workshops.

Why do you think it is essential for the private sector to invest in healthcare in Morocco?

The private sector needs to bridge the healthcare gap. From a demographic viewpoint, 12 percent of Moroccans will be over the age of 60 by 2025. The rate of chronic diseases is also growing, mainly due to unhealthy lifestyles. As such, there is a lack of adequate healthcare infrastructure at many levels, from hospital beds to medical equipment.

The gap gets bigger as we drill down to specialisations. Oncology has suffered from years of under-investment, mostly due to high barriers to entry. We need the private sector to step in and fill the gap, providing better treatment and aftercare.

D. Food and agriculture

Over the next 15 years, MENA's food and agribusiness sector will face numerous challenges and opportunities related to inputs, production, processing, logistics, retail, and disposal. The inputs to the agricultural and fisheries sectors will be transformed by the Global Goals emphasis on ending hunger, improving agricultural productivity, and mitigating and adapting to climate change. Severe land degradation and obstructed access to arable land in countries with limited infrastructure could limit production, especially if combined with political instability. Lack of investment in innovation can also affect yields. Under-investment in agricultural innovation is a significant factor worldwide; although agriculture represents 10 percent of global GDP, venture capital funding in agricultural technology (AgTech) experienced a 30 percent decline in 2016 compared to the previous year.¹⁷⁸

"Food markets in the Middle East and North Africa are currently distorted by a range of global subsidies, which could have a dramatic impact on competitive dynamics in the food and agriculture system."

The agriculture system employs more than 35 percent of MENA's workforce.¹⁷⁹ Food markets are currently distorted by a range of global subsidies, including US\$490 billion in agricultural subsidies, US\$35 billion in fishery subsidies, and roughly US\$455 billion in water subsidies (since agriculture accounts for about 70 percent of global water demand).¹⁸⁰ As such, reforming subsidies and/or carbon pricing regimes could have a dramatic impact on competitive dynamics in the food and agriculture system. Soft commodity prices could increase by 50–450 percent if they reflected the environmental impact of current food production.¹⁸¹ Responding to these challenges could drive the widespread adoption of various sustainable farming practices that use new technologies such as robotics and the mobile internet.

The logistics value chain in MENA's urban consumer markets will soon be transformed by a combination of new, on-demand customer models (such as UberEATS), technology innovations driven by IoT, and responses to growing concerns about food fraud and food safety. The retail sector will undergo one of the biggest transformations in the value chain. Pursuing the Global Goal of ending extreme poverty will open up new markets for delivering nutritious foods to low-income consumers. Sustainably sourced products will cease to be a niche category and will instead become the industry standard. And consumers' concern for animal treatment, animal-welfare standards, and overall farming conditions will continue to grow.

Global food production must increase by 60–70 percent by 2050 to feed the world's growing population.¹⁸² However, increased agriculture expansion to meet the world's growing food needs has already had a significant negative effect on the natural ecosystem – through land degradation and loss of biodiversity – and on rural livelihoods. Furthermore, much of the food produced is lost or wasted before it reaches the market, and major environmental stresses threaten supply. Farming and agriculture communities in MENA desperately need sustainable solutions to ensure their food security without damaging the environment.

“Shifting the food and agriculture system onto a sustainable development pathway could produce a number of disruptive business opportunities worth more than US\$92 billion in the region by 2030.”

The UN Global Goals agenda proposes meeting these profound challenges by shifting the food and agriculture system onto a sustainable development pathway. This change will be transformative and will have major impacts throughout the food and agriculture value chain, potentially producing a number of disruptive business opportunities worth more than US\$92 billion per year in the region by 2030.¹⁸³ The following section discusses some of these opportunities in further detail.

Reducing food waste in the supply chains

Worth US\$28 billion per year by 2030

Globally, 20–30 percent of food is wasted somewhere along the value chain between grower and consumer, and the majority of these losses occur in developing countries.¹⁸⁴ The underlying causes of substantial post-harvest losses in MENA's value chains include limited information on which to base feed production planning; pest infestations and diseases; poor and inadequate infrastructure such as roads, water, power, and market facilities; lack of dedicated transport systems for food; and inferior-quality bulk packaging that results in spillage and damage.

“In Egypt, 2.5 million tonnes of wheat are lost per year mainly due to slow transit times, reaching up to 78 days compared to 18 days in the Netherlands.”

Food loss in the supply chain is a significant and growing problem in MENA. In Egypt, 2.5 million tonnes of wheat is lost per year mainly due to slow transit times, which may reach 78 days from farm to retailer compared to 18 days in the Netherlands.¹⁸⁵ In the United Arab Emirates, nearly 33 percent of food is wasted every year, and in Iran, 35–70 percent of produce is lost – enough to feed more than 20 million people.¹⁸⁶ As sales of frozen and pre-packaged foods increase due to rising prices for fresh produce, many countries struggle with poor cold chain infrastructure or small, disorganised markets. While some brands such as

Egypt's Koki have made inroads towards increasing efficiency and establishing their own distribution networks, there remains a gap in the market for established players to improve their operations.¹⁸⁷

“Intelligent packaging for perishables, optimising food packaging, and expanding secondary markets for food items with cosmetic damage could enhance food security in the Middle East and North Africa by keeping food prices low and accessible for all.”

This presents a range of investment opportunities, from data systems that better manage production processes to investment in cold-storage facilities. Solutions to recover profit from these losses include using active intelligent packaging for perishables, optimising food packaging, and expanding secondary markets for food items with cosmetic damage. Emirates SkyCargo's White Cover is a protective product designed to shield temperature-sensitive cargo from solar heat during transportation, addressing the issue of delays at customs, long waiting times to unload, and slow transit times.¹⁸⁸ (Also see Box 12. *Keeping food cold in the United Arab Emirates*.) These solutions could enhance food security by keeping food prices low and accessible for all, especially in low-income markets.

Cost concerns and growing consumer awareness, bolstered by increasing sustainability reporting requirements for food retailers, will favour the development of low-waste food processors. Several countries in MENA have done a lot of work to regulate cold chain management and execution. Pilot efforts to develop low-cost storage techniques and handling practices have reduced food loss by more than 60 percent, and increased incomes for smallholders by more than 30 percent.¹⁸⁹

A significant opportunity higher up in the MENA food value chain lies in strengthening cold chain logistics, and using increasingly clean and sustainable refrigeration technologies. A key challenge in scaling this opportunity is the high capital outlay required to establish cold chain systems, although partnerships between firms can make financing viable. Current cold chain technologies also risk adding to air pollution, so new technologies that reduce hydrofluorocarbon emissions in cold storage are crucial to preventing greenhouse gas production and protecting the ozone layer. Many food companies are already adopting more environmentally responsible measures that will increase demand for ozone-friendly refrigeration.

Box 12. Keeping food cold in the United Arab Emirates

Each year in the United Arab Emirates, more than 3 million tonnes of food is wasted in the production and import processes.¹⁹⁰ At the same time, the country is seeing an increase in demand for food, and will have an estimated 19,000 food and beverage outlets by 2019.¹⁹¹ Increased urbanisation throughout MENA and an ever-growing middle class have shifted the dynamics of consumer behaviour when it comes to purchasing packaged food, fresh fruit and vegetables, dairy products, and frozen food. In 2016, Dubai-based company RSA Logistics responded to these shifts with its RSA Cold Chain project (RCC). With the MENA cold chain industry still in its infancy, RCC harnesses the growing need for quality supply chains based on sustainability, scalability, and specialisation.¹⁹²

As of June 2017, RCC provides third-party logistics services through its new storage facilities in the Dubai South Free Zone. The warehouse, which uses a unique ammonia-based chilling system, has capacity for 10,800 pallets in eight separate chambers, all with temperature ranges of -26 to 10 degrees Celsius to meet multiple product requirements. RSA Logistics believes there is enough demand for it to host up to a total of 21,000 pallets.¹⁹³

The company also operates a 360-degree cold chain logistics process that maintains product integrity from farm to retailer. RCC provides temperature-controlled transportation using its own fleet of four-tonne vehicles; technologies that allows for temperature tracking and product visibility; and a route optimiser with real-time analytics. This holistic solution meets the stringent compliance requirements for food storage and transportation, while focusing on quality and scalability. This service emerges at a critical time for the region and globally, as demand for, and supply of, food products is changing drastically. By being among the first to home in on the integrated cold chain opportunity, RCC has helped set regional standards for how to meet consumers' evolving needs.¹⁹⁴

Product reformulation

Worth US\$9 billion per year by 2030

Over the last three decades, there has been a major dietary shift in MENA: western food has increased in popularity and fast food has replaced traditional home-cooked food. Reformulating meals and processed food products to rebalance their nutritional content is one of the major ways to tackle non-communicable diseases such as obesity and cardiovascular disease. Product reformulation creates the potential for food manufacturers to tap into new markets of health-conscious consumers.

Product reformulation has been used successfully to reduce salt intake in the United Kingdom, Australia, New Zealand, and Canada.¹⁹⁵ In 2008, Cargill decided to fortify two of its top edible oil brands – Nature Fresh™ and Gemini® – with essential vitamins, which has proven more cost-efficient than producing vitamin pills.

“Israel-based company Salt of the Earth demonstrated that it could achieve a 25–33 percent reduction in sodium across a variety of meat products.”

Companies in MENA have also started to capture this opportunity. Israel-based company Salt of the Earth's collaboration with other Israeli meat companies demonstrated that it could achieve a 25–33 percent reduction in sodium across a variety of meat products, including frankfurters, sausages, and injected chicken pastrami.¹⁹⁶ In 2016, the Moroccan government agreed with the National Bread Federation to gradually reduce the amount of salt in baked products by 2025.¹⁹⁷

Providing healthy food that is also affordable has proven to be a major challenge in MENA. Low-income families may seek to maximise their limited incomes by consuming low-cost, energy-dense foods instead of more expensive, nutrient-dense foods. There have been surges in the region's production of sweet baked goods, and it is estimated this industry will grow an additional 5 percent by 2020.¹⁹⁸ Given the largest beneficiaries of product reformulation are disadvantaged members of the population, the process also plays a role in reducing health inequality. (See Box 13. *Healthy and accessible food in Morocco*.)

Box 13. Healthy and accessible food in Morocco

Amendy Foods is a start-up founded in 2015 by a team from the Hassan II Institute of Agronomy and Veterinary Medicine in Rabat, Morocco.¹⁹⁹ The company was originally established under Enactus, an international non-profit that inspires students to improve the world through entrepreneurial action. Amendy's founders shared a vision of becoming the reference company for nutritious food products in Morocco. Located in Chichaoua, the company produces, processes, and markets quinoa, oats, and soy seeds that are 100 percent organic. Committed to feeding Moroccans 'in a responsible way', Amendy now grows between 230 kilograms and 6 tonnes of cereals and seeds in collaboration with local farmers, across 13 hectares of land.

In the Chichaoua region, agriculture is not only risky but widely considered unprofitable. Farmers are unable to use their land for high-value corn crops due to excessive soil salinisation. Farmers with enough funds to start growing watermelons, another high-value crop, are deterred by the plant's excessive water requirements, given the region's already semi-arid climate and increasing incidence of drought, one of the adverse effects of climate change. Amendy Foods helps smallholder farmers grow quinoa for a number of reasons: it is more profitable than corn or watermelon; its genetic variability makes it adaptable to different environments, including saline soils; and compared to farms growing watermelons, farms growing quinoa use 85 percent less water per hectare.

Moreover, Amendy's quinoa is 100 percent Moroccan-grown without the use of any pesticides or fertilisers. Full of fibre, proteins, minerals, vitamins, and antioxidants, quinoa helps reduce the risk of obesity and cardiovascular disease. Within its first year, Amendy Foods produced more than 400 kilograms of quinoa. It priced its first product, Quinoa Seeds, at 50 percent less than the prevailing market price,²⁰⁰ making the nutritious product more accessible to low-income populations and contributing to food security. Quinoa Seeds are currently available in Rabat, with markets in both Casablanca and Marrakech under development.

Microirrigation

Worth US\$8 billion per year by 2030

The Middle East and North Africa is among the most fresh-water scarce regions in the world. By 2023, the average annual water availability per capita is expected to fall to 460 cubic meters, which is significantly below the UN's definition of water scarcity.²⁰¹ Nearly every country in the region is projected to be under severe water stress by 2025, and the region is estimated to lose 6-14 percent of its GDP by 2050 due to water scarcity.²⁰²

Decreased water availability also limits agricultural potential and leads to water-use competition among farmers. Agriculture uses 85-90 percent of water in the MENA region.²⁰³ There are several initiatives across the region that are aimed at improving farmers' access to water and increasing their water-use efficiency. The Water Management Initiative in Jordan has focused on increasing the availability of fresh water through the construction of 6 major wastewater treatment facilities since 2000. It has then encouraged public acceptance of treated wastewater as a viable water resource for agricultural use. The Replenish Africa Initiative was commissioned in 2010 by the Coca-Cola Company, and improves projects such as rainwater harvesting and water for irrigation.

"Many farms continue to rely on the old technique of flood irrigation to water their crops, which is highly inefficient since a large amount of water is lost to evaporation and runoff."

There is significant scope for improving irrigation efficiency and productivity throughout the region by adopting large-scale modern irrigation techniques. Many farms continue to rely on the old technique of flood irrigation to water their crops. This delivers water to the surface of the cropland, where it sinks into the earth to be absorbed by the plants. While surface irrigation is the easiest and least costly method of irrigation, it is highly inefficient since a large amount of water is lost to evaporation and runoff, leaving less than 10 percent of the water to be taken up by plants. This is also the most widely most used method in MENA, a region already highly susceptible to changing climate conditions, including rising temperatures, protracted droughts, destructive storms, and floods.

"Sprinkler and drip irrigation systems have the potential to save net withdrawals of 250 billion to 300 billion cubic metres of water globally by 2030."

Sprinkler and drip irrigation systems deliver less water more efficiently. Using sprinklers can improve yields by 5-20 percent and reduce the total water use by 15 percent.²⁰⁴ Drip irrigation is even more effective, improving yields by 15-30 percent while reducing the water required by 20-60 percent. Drip irrigation systems operated by solar-driven pumps are a particularly promising alternative form of irrigation for the region. Together, these irrigation methods have the potential to save net withdrawals of 250-300 billion cubic metres of water globally by 2030.²⁰⁵

In Egypt's Nile Delta region, there is major scope for improvement given that only 35 percent of irrigated areas are equipped with drip and sprinkler schemes.²⁰⁶ Morocco is planning a large-scale conversion of old irrigation systems to sprinklers and drip irrigation (see Box 14. *Planning modern irrigation techniques in Morocco*). Barriers include capital requirements, lack of information about the benefits of irrigation techniques, and continuing high subsidies for water in many countries.

Box 14. Planning modern irrigation techniques in Morocco

Morocco's agricultural sector employs more than 40 percent of the country's workers – a figure that rises to 80 percent in rural areas – and represents 15 percent of its GDP.²⁰⁷ The Plan Maroc Vert (PMV – Green Morocco Plan) was launched in 2008 and will run through to 2020, with the primary aim of ensuring the agricultural sector maintains its critical role as a driver of economic growth.

The PMV addresses several domestic obstacles identified in the agricultural system, including low investment, low yields in cereal crops, and a lack of preparedness for climate and weather volatility. Fifteen to 20 years ago, Morocco depended mainly on cereal yields for the bulk of its agricultural output. The PMV has reduced the land area dedicated to cultivating cereal so it can be used to farm higher-value products such as olives, fruit, and livestock. The plan focuses on commercial agriculture and promotes investment in large-scale farms to maximise production, while incorporating smallholder farmers by safeguarding their incomes and access to natural resources.

The plan also sets a target of conserving 1.4 billion cubic metres of water each year throughout Morocco's agricultural industry. The implementation plan includes steps to transform 550,000 hectares of land from spray or surface irrigation to more localised irrigation methods over a 10 year period. By the end of 2014, around 400,000 hectares had already been equipped with modern drip irrigation systems under the country's 10-year National Irrigation Water Saving Programme. Almost half of agricultural GDP growth since the launch of the PMV has come from within irrigated areas, and excluding rainfall, 97 percent of this added value was achieved within drip-irrigated areas.²⁰⁸

Nevertheless, it is estimated that just 19 percent of Morocco's total agricultural land is irrigated.²⁰⁹ Morocco will need to continue increasing irrigation so it can secure its ambitious PMV plans to boost production while promoting sustainable use of the country's water resources.



UAE Careem Captain driving. Photo credit: Careem

4. THE IMPACT ON JOBS

MENA is not generating enough jobs for its labour force and the rate of job creation has slowed, making it difficult to absorb the large number of unemployed people. In 2015, unemployment in the region stood at 12 percent.²¹⁰ Estimates suggest that the region must create 85 million jobs by 2023 to be on par with global average unemployment rates.²¹¹ Unemployment rates are particularly high in Egypt, Iran, Iraq, Jordan, Morocco, and Tunisia.²¹² Only 19 percent of the working-age population is employed in the region's formal sector, as more people find jobs in the low-productivity informal economy, often as temporary migrant labour.²¹³ A majority of the region's formal jobs are in microfirms with fewer than five employees.

"The total number of unemployed young people in the Middle East and North Africa region reached 10 million in 2017."

Pursuing the whole Global Goals agenda will have a positive impact on two long-standing issues facing the region's social and economic development: youth unemployment and the participation of women in the labour force. The total number of unemployed young people in MENA reached 10 million in 2017,²¹⁴ and the unemployment rate is estimated to climb to 30 percent by 2019.²¹⁵ In some of the poor and conflict-affected countries in the region, nearly 45 percent of young people are unemployed.²¹⁶ Many of the youth that have found work are in vulnerable jobs in the informal sector. The region will need to generate 60 million new jobs by 2020 to absorb enough workforce entrants to stabilise youth unemployment at current levels.²¹⁷

At the same time, the rate of women's participation in employment in MENA represents only 28 percent of the total labour force.²¹⁸ Women who work predominantly remain in the public sector, namely in education and health, which offers them better wage and non-wage benefits than most private sector jobs.²¹⁹ Young women are particularly vulnerable, facing the double burden of age and gender discrimination, and a workforce participation rate below 18 percent.²²⁰ More than 44 percent of young women are actively seeking work yet remaining unemployed.²²¹

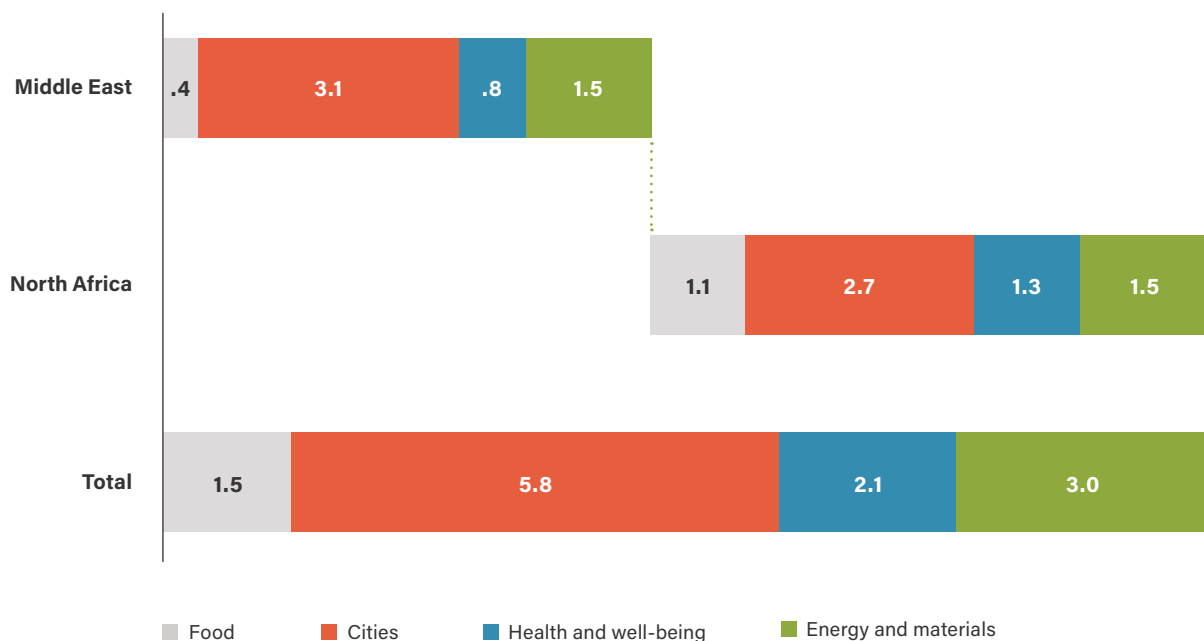
"Pursuing the 60 market hotspots linked to the Global Goals could create around 12.4 million new jobs in the Middle East and North Africa."

Notwithstanding these challenges, the good news is that by 2030, opportunities created by pursuing the 60 market hotspots linked to the Global Goals identified in this report could create around 12.4 million new jobs in MENA alone (Exhibit 11).²²²

EXHIBIT 11

More than 12 million jobs could be created by pursuing the Global Goals business opportunities in MENA

Jobs created by Global Goals business opportunities across the Middle East and North Africa; millions



Source: Literature search; Alphabeta analysis

Opportunities in cities would create the most jobs. Developments in urban construction, mobility, and infrastructure will generate nearly 6 million jobs. One World Bank study shows that the region could generate 2.5 million jobs by meeting its estimated annual infrastructure needs.²²³ Almost one-fifth of the total employment potential in the region – around 2.2 million jobs – comes from just one opportunity: affordable housing.

In addition to cities, pursuing Global Goals opportunities could create more than 3 million jobs specific to energy and materials, around 2.1 million in health and well-being, and more than 1.5 million in food and agriculture. However, these jobs will only meet Global Goals targets if they provide decent, well-paid work, and if the companies that create them are inclusive in all their activities.

How to ensure decent work and inclusive growth

The imperative for businesses to provide ‘decent work’ – that which complies with International Labour Organization (ILO) decent work guidelines and the UN Guiding Principles on Business and Human Rights – remains critical. The ILO defines decent work as work that is productive and delivers a fair income; provides security in the workplace and social protection for families; offers prospects for personal development and social integration; gives people freedom to express their concerns as well as to organise and participate in the decisions that affect their lives; and ensures equality of opportunity and treatment for all women and men.²²⁴ Businesses should ensure these principles are embedded in their own workforces, and that their suppliers are doing the same.

Ensuring that schooling and skills training align with future job requirements will remain an essential component of many of the region’s education and labour market policies. Currently, nearly 40 percent of employers in the region reported not being satisfied with recent graduates’ skill levels.²²⁵ Businesses could provide critical advice to governments on the skills required for jobs of the future, and then provide appropriate training or reskilling. Countries could also use private, company-funded training institutes, as Morocco has done in partnership with Renault. The particular challenge of youth unemployment requires businesses to engage with career guidance services and programmes that prepare young people for the world of work. There are many opportunities for businesses to be more actively involved in this area.

Increased digitisation and automation of processes is expected to displace jobs in traditional labour-intensive functions such as assembly-line manufacturing. Many businesses will face the cost–reputation trade-off, in the sense that laying off workers in favour of automation could lead to productivity gains but also political and social backlash from workers and consumers. However, businesses must be mindful that the choice is not

a binary one. Automation allows businesses to rethink their business models, including scaling up and diversifying into services related to their core operations. This creates opportunities for workers to be retrained and to take on higher-value jobs that complement automation, rather than being replaced by automation. Dialogue between companies and governments must take place to ensure both continue to meet changing labour market requirements in a socially sustainable manner.

“Closing the female labour force participation gap in the Middle East and North Africa could add US\$2.7 trillion to the region’s GDP by 2025.”

Increasing women’s participation in the workplace and ensuring their equitable treatment are widely shown to be drivers of economic growth.²²⁶ The opportunity to involve women more significantly in the economy is one of the greatest opportunities for MENA. Nearly half of women’s productive potential in the region remains untapped, compared to one-quarter of men’s potential. Closing the region’s labour force participation gap for women could add US\$2.7 trillion to MENA’s GDP by 2025, or US\$600 per year – a 47 percent increase over one decade – and bring a host of other economic and social benefits.²²⁷ Women’s full employment could increase household incomes by as much as 25 percent.²²⁸

There are several examples of businesses that have realised the benefits of gender equality, making significant contributions to women’s empowerment in the workplace, and deploying inclusive business models that deliver remarkable productivity gains. For instance, Saudi Aramco, General Electric, and Tata Consultancy Services opened the first all-female business process services centre in Riyadh, Saudi Arabia, employing more than 1,000 women. Saudi Aramco – in cooperation with Princess Nourah bint Abdul Rahman University and Wipro Arabia – also inaugurated the first all-female business and technology park in 2016, aiming to provide employment for 20,000 women over the next decade.²²⁹ (Also see Box 15. *Investing in women is smart business*.)

Finally, developing inclusive business opportunities and linking SMEs to global, regional, and national supply chains are two of the most powerful ways businesses can pursue the Global Goals in MENA. Linking these enterprises to larger value chains and providing them with viable finance options will be critical to improving the region’s productivity and delivering on the Global Goals.

Box 15. Investing in women is smart business

Lebanese society and its legal system still represent inequalities towards women; some Lebanese laws do not give women the same rights and opportunities as men. Lebanese women represent less than 27 percent of the local labour force compared to a world average of 52 percent.²³⁰ International studies show that integrating women in the labour force, supporting women's entrepreneurship, and closing the gender gap in financial inclusion would lead to national economic growth.²³¹

BLC Bank, established in 1950, is one of Lebanon's oldest banks. In a highly competitive banking sector, its daring decision to focus on SMEs and women enabled BLC Bank to overcome critical market challenges, establishing itself as a major player in Lebanon's financial sector. This focus was complemented by a fully fledged 'We Initiative' launched in 2012 that is dedicated to women's financial inclusion and economic empowerment.

The We Initiative is open to all women in Lebanon – entrepreneurs, professionals, executives, and mothers alike – and offers a unique customer value proposition that combines financial and non-financial services. The programme allows women to receive funding through a comprehensive range of financial schemes, which they can use to grow their expertise through training, mentorship, and expert advice. They can also increase their exposure through access to market opportunities and BLC Bank's Brilliant Lebanese Awards, the first business awards in Lebanon with a category specifically dedicated to the Woman Entrepreneur of the Year.

Through its We Initiative, BLC Bank has created tangible value for women, putting them under a national spotlight and encouraging their participation in the local economy. This has had a remarkable social impact, reaching more than 15,000 women since 2012. And the financial results have also been impressive; since 2012, the women's loans and deposits portfolios have witnessed annual growth rates almost double those of their male counterparts, and their non-performing loan rates are 58 percent lower. BLC Bank has effectively dispelled the common belief that female customers are less profitable or less creditworthy than men.

The We Initiative also includes an internal programme, whereby BLC Bank takes measures to promote gender equality, provide a fair working environment, and introduce cultural change by training its staff to eliminate unconscious bias, and also reviews its procurement policy to include SMEs and female entrepreneurs. BLC Bank has gained international recognition for its work, becoming a reference both locally and internationally, and influencing the creation of similar programmes in more than 60 countries around the world.

In its work to achieve gender equality within Global Goal 5 since 2012, BLC Bank has become the first financial institution in MENA to advocate for women's economic empowerment; sign the UN Women's Empowerment Principles and be a member of its Leadership Group; commit to the UN Global Compact; and chair the Global Banking Alliance for Women.



Buildings in the Emirate of Dubai. Photo credit: © HolyLazyCrazy / Adobe Stock

5. SUSTAINABLE FINANCE IN MENA

Substantial investment will be needed to capture the Global Goals opportunities. The total additional investment required to achieve all of the Global Goals in all countries is estimated to be US\$2.4 trillion a year until 2030, with the lion's share – around US\$1.6 trillion a year – needed for infrastructure.²³²

Major changes in the financial system will be required for that seemingly ample capital supply to meet the investment demand generated by the Global Goals. Achieving the Global Goals depends on aligning the global financial system with sustainable, long-term outcomes. Lengthening the investment horizons of many market participants and attracting them to sustainable investments in line with the Global Goals requires clear thinking, individual and sectoral action, and unprecedented collaboration between the public and private sectors.

The most critical type of investment required to achieve the Global Goals is investment in sustainable infrastructure, as gains from most other investments will depend on the supporting infrastructure being in place. The International Monetary Fund has estimated that raising infrastructure investment towards desirable levels could boost growth in the short term by some 3 percentage points among some of the region's developing oil exporters – Algeria, Iran, Iraq, Libya, Syria, and Yemen – and about 1.5 percentage points among some of the region's oil importers – Egypt, Jordan, Lebanon, Morocco, and Tunisia.²³³

In advanced economies, an increase in infrastructure investment of 1 percentage point leads to a 0.4 percent rise in GDP in the first year, and up to 1.5 percent four years out.²³⁴ To achieve the Global Goals, infrastructure is needed in a range of sectors – such as energy, transportation, agriculture, and water – and in many forms, including schools, hospitals, and broadband networks that deliver high-speed internet access.

“Despite high levels of investment spending, there is still a significant infrastructure investment gap in the Middle East and North Africa region that is estimated to be around US\$106 billion per year through to 2020.”

In the 1990s and 2000s, public infrastructure investment in MENA was higher than in most developing regions. The region’s oil-exporting countries took advantage of rising fuel prices to increase their spending. Despite high levels of investment spending even now, there is still a significant infrastructure investment gap that is estimated to be around US\$106 billion per year through to 2020 or 6.9 percent of the annual regional GDP.²³⁵ The region’s infrastructure investment needs are especially high in the transportation sector, and particularly in road networks; this area is estimated to account for about 43 percent of total infrastructure needs in the region.²³⁶ Transportation is followed by energy (42 percent), ICT (9 percent), and water and sanitation (5 percent). Rehabilitation needs are expected to account for slightly more than half of the total infrastructure needs across the region.

There is wide variation in the current quality of infrastructure across countries in the region and their projected infrastructure investment needs. There is also a lack of regional cooperation, coordination, and integration. Some oil-exporting countries – such as Algeria, Iran, Iraq, Libya, Syria, and Yemen – are expected to commit nearly 11 percent of their GDP annually (US\$48 billion) in an attempt to ensure they have sufficient infrastructure to meet their growth and poverty reduction targets.²³⁷ Other countries in the region will need to spend around 5 percent of their GDP on infrastructure improvements and maintenance. Developing strong institutions to manage public investment across all countries in MENA is crucial to fostering sustainable economic growth. (See Box 16. *Filling the infrastructure gap with Islamic finance*.)

“Wider and more efficient use of blended finance instruments in the Middle East and North Africa could encourage much more private investment in sustainable infrastructure by helping to share the risks between public and private investors.”

More blended finance – which taps the large pools of private capital in the region – will be needed to fill the gap. The risk profile of many infrastructure projects could deter private investors, but blended finance brings together public and philanthropic finance providers to take on high-risk tranches of an investment, encouraging private investors to provide the remainder at a lower risk. Wider and more efficient use of blended finance instruments in MENA could encourage much more private investment in sustainable infrastructure by

helping to share the risks between public and private investors. Achieving a step change in the number of projects financed this way will depend on public and private players learning how to develop more blended products together, a greater supply of bankable projects, and improvements in legal protection and enabling regulatory environments. There is also potential to extend the use of blended finance beyond infrastructure, to encourage private investment into new or riskier sectors such as healthcare; sustainable agriculture and land use; social housing; education for girls; and clean, off-grid energy generation. If executed well, blended finance could be the single most important factor in delivering the Global Goals.

Box 16. Filling the infrastructure gap with Islamic finance

The Islamic finance industry is well established across MENA and throughout Asia. The system is based on moral principles and backed by a values-based Islamic legal framework (Shariah). With a US\$2 trillion market, Islamic finance seeks to create transparent and free markets, commercial fairness, and ethical business as basic standards of economic activities. Islamic finance embodies the main tenets of the 2030 Agenda for Sustainable Development: inclusiveness; equitable and participatory growth; social and distributive justice; open and accountable institutions; and sustainability. This creates an opportunity to unleash the potential of the Islamic finance market to close the Global Goals funding gap of US\$2.4 trillion.

Approximately one-third of SMEs in MENA are excluded from the formal banking sector because they seek Shariah-compliant products that are not readily available in the market. Islamic finance, which is estimated to reach a size of US\$3.24 trillion by 2020, can play a significant role in closing the financing gap for SMEs while promoting inclusive economic growth through asset-based financing options and risk-sharing principles.

Bahrain-based Al Baraka Bank offers diminishing *mushārah* products – where a financier and client participate in either the joint ownership of property or equipment, or a joint commercial enterprise – for SMEs in a range of markets, including trade, retail, grocery shops, bakeries, auto garages, and metalwork. The Pakistan branch of Wasil Foundation offers *salam*-based (forward financing) products that allow advance-purchase agreements, predominantly in agriculture, to help smallholder farmers benefit from government-set crop prices.

More specifically, Islamic microfinance has the potential to call on Islamic social principles to provide financial access to businesses in Muslim-majority countries that do not use formal financial services because of their religious beliefs. However, Islamic microfinance institutions currently constitute only a small percentage of the total microfinance industry and are based on non-profit or modest-return principles.

The overlap between Islamic finance and sustainable development can be broadened by shifting the focus from donor-dependent organisations to instead tap investor interest in the Islamic capital markets by developing innovative finance instruments. One example is 'green *sukuk*' – Islamic bonds used to finance renewable energy projects.



Abandoned belongings and life jackets on the coast. Photo credit: ©aalutcenko / Adobe Stock

6. RENEWING AND ENERGISING THE SOCIAL CONTRACT

More than half of the Global Goals aim to meet basic needs, empowering and protecting those currently disadvantaged in society. Achieving these goals is also a business imperative. Without improving the incomes, health, rights, and education of the vast majority of the world's working people – not to mention providing better social protection – the business opportunities arising from sustainable development will not materialise. Various global multi-stakeholder initiatives have focused exclusively on developing principles for responsible business, and spreading responsible business standards along global supply chains. The largest initiative is the UN Global Compact, with its principles-based framework that calls on companies to align their strategies with universal principles of human rights, labour, the environment, and anti-corruption.

The public sector, civil society, and increasingly the private sector are urgently pursuing the same Global Goals, and they need to support each other to achieve them. There will be different emphases and difficult trade-offs to negotiate but, in principle, all these stakeholder groups are pointing in the same direction. All three groups could renew a social contract through the following actions.

Actions for businesses

Companies can show their commitment to the Global Goals by respecting basic standards of behaviour enshrined in the UN Global Compact and the UN Guiding Principles on Business and Human Rights. While many companies have embraced the need to reduce their negative environmental impacts, much less progress has been made on improving businesses' social impacts. Incorporating the Global Goals into business strategy promotes the targets that aim to meet basic needs and extend social and economic development to those currently marginalised. The result will be an increased focus on inclusion in everything businesses do.

Businesses should develop good jobs that offer reasonable pay at every step along their supply chains, and integrate human rights into their operations. This approach promotes sustainable development while also reducing harm. Businesses can be powerfully inclusive – not only as creators of jobs that offer decent work and conditions, but also as developers of inclusive services and other innovations that improve the lives of the very poorest. Sustainable company leaders should look for ways to support their smallest and most disadvantaged suppliers, working with them to improve productivity, invest in skills, build resilience, improve access to credit, and ensure no one is left behind. The 10 principles of the UN Global Compact, developed to help businesses do the right thing, are a helpful guide. Fully implementing these principles should extend into the informal sector as well, and businesses can do a great deal to promote inclusion through business innovation.

“Developing inclusive business opportunities and linking SMEs to global, regional, and national supply chains – providing them with viable finance options – are two of the most powerful ways for businesses to pursue the Global Goals in the Middle East and North Africa.”

Companies will have different approaches to reducing poverty and promoting inclusion. Developing inclusive business opportunities and linking SMEs to global, regional, and national supply chains – providing them with viable finance options – are two of the most powerful ways for businesses to pursue the Global Goals in MENA. One commonly effective tactic is to pursue gender equality within companies – and within their supply chains and direct suppliers – while expanding business opportunities that promote gender equality. That could involve publishing company's gender profiles from top to bottom, covering pay differentials and the representation of women and men at each level of seniority. Companies can ask their top suppliers to do the same, and they can progressively embed the UN Women's Empowerment Principles throughout their activities.²³⁸ These principles help companies tailor existing policies and practices or establish new ones to achieve gender equality in their businesses.

Businesses in the region can also provide solutions to promote inclusivity and connectivity to displaced and refugee populations. These groups are particularly well placed to benefit from mobile money services (since access to traditional financial services is challenging) as well as other services provided through mobile technology (see Box 17. *Improving education in Jordan*). For example, Zain is implementing a variety of initiatives that target the plight of refugees and internally displaced persons residing in its markets, to facilitate connectivity and improve their welfare. One example is the Tawasol Line offered by Touch in Lebanon, which offers discounted voice, SMS, and data rates for Syrian refugees, and discounted calls and messages to Syria. Launched in 2015, this service had attracted more than 47,000 subscribers by the end of 2016. Zain Jordan developed the Syria Sim service in collaboration with the UNHCR, placing Wi-Fi hotspots in refugee centres and providing unlimited minutes for calls between refugees and the UNHCR to support greater coordination. The service has attracted around 49,000 refugees and counting.²³⁹

"An estimated 3.7 percent of GDP in the Middle East and North Africa was lost from illicit financial flows and tax evasion between 2003 and 2012."

Companies will need to pay their taxes and disclose tax information transparently. Tax revenue is a crucial source of public finance for sustainable development, and one that many developing countries in particular need to increase substantially. More broadly, tax represents the consideration in the social contract between a state and its citizens. It is estimated that 3.7 percent of the region's GDP was lost in illicit financial flows and tax evasion between 2003 and 2012.²⁴⁰ In Lebanon, companies divide themselves into smaller companies so that they are liable for less tax, and in Morocco, companies use a form of accelerated depreciation to hide income.²⁴¹ Businesses will need to demonstrate that they pay taxes where their revenue is earned, and that they contribute positively to the communities in which they operate.

Finally, businesses can use their influence to push policy in a responsible, transparent, and accountable direction. Much of the current mistrust in business derives from occasions when companies have used their power to access policymakers, petitioning them to lobby for the business's own narrow interests rather than aligning their agenda with the common good. Instead, companies should be transparent about all public affairs activities; avoid lobbying for policies that are contrary to achieving the Global Goals; and support sound science and the greater good.

Box 17. Improving education in Jordan

The Syrian Conflict has led to over 2.8 million Syrian children to be out of school.²⁴² In Jordan, only 61 percent of the 261,000 school-aged Syrian refugees attend school.

In March 2015, Pearson committed to invest US\$2.25 million in Every Child Learning. The partnership aims to improve education for Jordan's Syrian refugees and host community children. At the end of 2016, Pearson committed to doubling its investment for an additional three years to support the pilot programme in partnership with the Jordanian Ministry of Education. The cornerstone of the project is researching and developing new programmatic and digital solutions, drawing on Pearson's core expertise, to help improve the delivery of education in emergency and conflict-affected settings. To kick-start the partnership, Pearson helped to establish two educational centres in communities with a high refugee population in Amman.

Pearson is also working with Save the Children as a partner to maximize its impact on the ground. Together, they have recently developed a new education project, which they will pilot and adapt with a view to operate around the world on a larger scale. The project includes Space Hero (Batlalfada), a fun and engaging math learning app designed by Pearson in collaboration with refugee and Jordanian children, to help strengthen their math skills. The app follows the story of Shehab (Arabic for 'shooting star') as he travels back to Earth. It is available as a free download on the Google Play store, so that children can access this learning tool anywhere and at any time.

The app also supports a broader in-school programme led by Save the Children that focuses on teacher professional development, school-community relations, after-school learning, and psychosocial support. Overall, the in-school programme is planned to reach 3,750 people, to directly accelerate their learning and improve their well-being.

Actions for governments

Governments in MENA can help businesses pursue these shared goals by creating an environment that enables private sector growth; good and accountable governance; the rule of law; effective contract enforcement and legal systems; and functioning customs regimes. They should ensure policymaking is transparent and open, operating via a mechanism that encourages citizen participation.

"Over 50 percent of surveyed firms regarded uncertainty about regulatory policy as an obstacle to their growth in the Middle East and North Africa."

New firms in the region battle restricted competition and unequal opportunities, which favour a few dominant market players while limiting innovation and job creation.²⁴³ According to a World Bank report on employment potential in the region, if Jordan removed restrictions on foreign direct investment in service sectors, more foreign firms would enter, which would, in turn, create more jobs in domestic firms. In Morocco, more competition, equal and predictable treatment by tax administrations, less corruption and obstacles in the judicial system, and a lower cost of finance would all raise job growth among young firms.²⁴⁴ Ending large variations in the degree to which rules are enforced would increase competition and innovation; more than 50 percent of firms surveyed for the World Bank's report regarded uncertainty about regulatory policy as an obstacle to their growth in MENA.²⁴⁵

However, the region has already made steady progress in business reforms that improve the ease of doing business for SMEs. In the last year alone, 11 of the 19 economies covered in this report have put in place nearly two dozen business reforms.²⁴⁶ Multiple reforms aimed to help entrepreneurs start a new business, and it now takes an average of 17 days to start a business in the region, compared to more than 43 days in 2003. In Morocco, for example, it took 35 days to start a business 15 years ago, compared to just 9 days now.²⁴⁷ Kuwait established a one-stop shop for new business owners and improved the online process for registering a business. More can be done to improve competitiveness and productivity; despite the growth of support initiatives and better environments for new businesses, scaling is still difficult in the region.

Governments should work to substantially reduce illicit financial flows and address tax avoidance stemming from multinational corporations' international transactions. They should ensure their tax systems are fair and effective, especially in relation to corporate income taxes. And just as all businesses need to pay their tax, governments' spending must be transparent and free from corruption.

"The Arab Anti-Corruption Organization estimates that corruption has resulted in the loss of US\$1 trillion in public resources over the past 50 years."

On Transparency International's 2016 Corruption Perceptions Index, four out of the ten most corrupt countries in the world are from the MENA region: Iraq, Libya, Yemen and Syria.²⁴⁸ The United Arab Emirates and Qatar remain above average on the Index, although their corruption scores are worsening. Tunisia is one of the few countries to implement serious anti-corruption reforms, such as passing the Access to Information law in 2016, and has even adopted a national anti-corruption strategy. The Arab Anti-Corruption Organization estimates that corruption has resulted in the loss of US\$1 trillion in public resources over the past 50 years – resources that could have been invested in creating job opportunities and improving the standard of basic services.²⁴⁹

Finally, governments can take on a stronger role in financing infrastructure projects. As Section 5 discussed, infrastructure is critical to achieving the Global Goals and stimulating private sector growth. More private sector finance for infrastructure could be mobilised through blended finance if governments created the right conditions. For instance, governments could pursue options, most importantly greater policy predictability, to reduce risks for private finance.

Actions for civil society

Civil society has a crucial role to play in monitoring institutions and ensuring businesses, governments, and community organisations are transparent and respect the rule of national and international law. Civil society is also responsible for engaging in dialogue with all sectors, and advocating for changes to laws and practices that currently fail to deal with or are inadequately dealing with corruption, modern technology, socially destructive practices, and disruptive change.

All parties – businesses, governments, and civil society – need to follow up on the guarantee of social protection and monitor labour market institutions, to ensure a dignified future for societies and a fair competitive basis for business.



City tram on a street in Casablanca, Morocco. Photo credit: © Leonid Andronov / Adobe Stock

7. CONCLUSION

This report has presented the case for businesses to concentrate on solving the greatest challenges facing MENA that the Global Goals set out to overcome. There is much more than US\$637 billion in value at stake; there is an opportunity to shape a safer and more prosperous world with a more predictable future that is worth investing in and innovating for.

Achieving the Global Goals would make the world more sustainable, inclusive, and full of opportunities for everyone. There would still be many challenges, but societies would be better equipped to tackle them. The alternative is more uncertainty, intensifying risks, growing social and environmental costs, and bigger shocks. Reaching that better world depends on business leaders in the private sector choosing to lead the charge for sustainable growth.

The Commission has identified six actions you can take as a business leader to make this transformational change a reality.

1. **Build support for the Global Goals as the right growth strategy.** The more business leaders who understand the business case for the Global Goals and pursue them in their companies and across the business community, the faster progress will be towards better business in a better world.

2. **Incorporate the Global Goals into your company strategy.** That means applying a Global Goals lens to every aspect of strategy: appointing board members and senior executives who will prioritise and drive execution; aiming strategic planning and innovation at sustainable solutions; marketing products and services that inspire consumers to make sustainable choices; and using the goals to guide leadership development, women's empowerment at every level, regulatory policy, and capital allocation.
3. **Drive the transformation towards sustainable markets with your peers in the sector.** Shifting whole sectors onto a sustainable footing in line with the Global Goals will unlock much bigger business opportunities. Business as usual will not achieve this market transformation, nor will disruptive innovation by a few sustainable pioneers. The whole sector has to move.
4. **Work with policymakers to pay the true cost of natural and human resources.** Sustainable competition depends on all competitors accepting prices that reflect the true costs of the way they do business. Business leaders must therefore work openly with regulators, businesses, and civil society to shape fiscal and regulatory policies that create a level playing field more in line with the Global Goals.
5. **Push for a financial system oriented towards longer-term sustainable investment.** Business leaders can strengthen the flow of capital into sustainable investments by pushing for transparent, consistent league tables of sustainability performance linked to the Global Goals. You can also aim for wider and more efficient use of blended finance instruments to share risk and attract more private finance into sustainable infrastructure, and alignment between regulatory reforms in the financial sector and long-term sustainable investment.
6. **Rebuild the social contract.** Business leaders can regain society's trust and secure their licence to operate by working with governments, consumers, workers, and civil society to achieve the whole range of Global Goals. This means taking on a role of responsible, open policy advocacy.

The members of the Business and Sustainable Development Commission have chosen to lead our own companies towards the Global Goals. With this report, we urge others to join us. The world has 12 years before we reach the 2030 deadline. There will never be a better time for company leaders to align their business objectives with the goal of creating a better world.

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The Business and Sustainable Development Commission was launched in Davos in January 2016. It brings together leaders from business, finance, civil society, labour, and international organisations, with the twin aims of mapping the economic prize that could be available to business if the UN Sustainable Development Goals are achieved, and describing how business can contribute to delivering these goals.

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Members of the Business and Sustainable Development Commission endorse the general thrust of the arguments, findings, and recommendations made in this report, but should not be taken as agreeing with every word or number. They serve on the Commission in a personal capacity. The institutions with which they are affiliated have not been asked to formally endorse the report.

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