Middle East Megatrends: Transforming our region
Understanding the impact of global trends on the Middle East, and how governments and businesses succeed in a very different world

Demographic and social change
Shift in global economic power
Rapid urbanisation
Climate change and resource scarcity
Technological breakthroughs

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We partner with our region’s Governments and businesses, to help solve the region’s most important problems and build trust in society. Together we can manage change and seize the opportunities.

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Understanding the Megatrends

Distinguishing clearly between cyclical and structural trends can always be difficult. In the Middle East, where the oil cycle appears to determine the fate of so many sectors, it is especially hard. When the oil price is high, our region booms. When it is low, it is hard to do anything but react to the cut in investment. Yet our region, perhaps more than any other, is at the epicentre of the megatrends reshaping the world. Understanding how these structural trends will impact us – both separately and together – is vital to get a clear picture of how to tackle the challenges we face successfully and to uncover opportunities we may have never considered.

We see five megatrends impacting the world and our region over the next few decades. Demographic and social change has driven both prosperity and instability in much of the Middle East, as explosive population growth has boosted economies, strained resources and raised the spectre of youth unemployment. Part of that population growth stems from the inflow of expatriates, responding to the shift in global economic power which has placed the Middle East firmly in the middle of the world’s fastest-growing markets allowing Dubai, in particular, to turn itself into a global hub.

Urbanisation is transforming nations worldwide. Our region is one of the most highly urbanised in the world and, with new cities under construction, the level is still rising. It is a struggle to develop sufficient infrastructure to cope with both the population explosion and the pressures brought by climate change and resource scarcity – water consumption and energy diversification will become more pressing issues in coming years. Technological breakthroughs could be part of the answer, but the disruption that digitalisation is bringing to today’s organisations also requires new skills that are in short supply in the Middle East.

If we can leverage young people’s brainpower, we could take the economy to the next level.

28%  
Youth unemployment in MENA is among the highest in the world at 28%.

40%  
The region is young, with over 40% of people under 25.

51m  
The population of the GCC has doubled over the past 20 years to 51 million in 2015.

$20bn  
In 2014 investment flows into the GCC were $20bn, four times lower than in 2008 at their peak.

30%  
Dubai International Airport is the world’s largest for international passenger traffic contributing 30% to Dubai GDP.

Building cities in the desert is limited by water scarcity - it's a long-term story, but we need to think about it today.

The shift in global economic power has placed the Middle East at the heart of fast growing trade flows.

The direction of change

These five megatrends are creating new realities in the Middle East. It is true that the urgency of the transformation currently underway is a reaction to the sharp drop in oil revenues, but the direction of change – and its complexity – is an inevitable response to these multiple global forces. Governments know they need to cut subsidies, expand their fiscal base and bring private investment and corporate practices into state entities. But they also know they need to keep building infrastructure, enable technology and innovation and start producing the right kind of graduates to drive productivity growth. By understanding the broader context, governments can ensure they are doing everything needed to make the transformation successful.

Sources:

Take the push for smart government in the UAE and, more recently, in Saudi Arabia. The aim is to automate processes so that citizens can conduct their business by smartphone - cutting costs and boosting productivity, while removing opportunities for corruption. That kind of technology enablement is crucial for future global competitiveness, and the public sector in the GCC is pioneering digitisation. Automation, however, also means downsizing government entities that are currently the largest employers of citizens. To handle that transition successfully, graduates will need new skill sets in these areas, which means rapidly implementing serious reforms in both school and university curricula. The opportunities are great – but so too are the threats. If the Middle East ignores the technological breakthroughs that are disrupting sector after sector around the world, it will not be able to compete in the economy of the future.
Informing strategy

Businesses too can translate their understanding of the megatrends into practical guidelines for future strategy. Emirates Airline is the poster child for responding successfully to changing global realities. It has developed over the past decade into the world’s largest international carrier - it has taken advantage of the shift of global economic activity towards emerging markets. Emirates asked the right questions including: where is traffic flowing, what routes are needed, how do we engage with customers, how do we understand the preferences of new travellers? It analysed the flows of people and trade between Asia, Africa and the Americas and developed an innovative “super-connector” business model – with Dubai at its hub – that has disrupted the global aviation industry. When it opened in the US, for example, it opted for Boston over one of the more established major airport hubs such as Atlanta, identifying huge demand to and from the Indian subcontinent. Emirates identified the megatrends and found its role in them.

Many organisations are using megatrend insights to help them rethink strategy by taking an outside-in look at their businesses, turning the challenges they face into opportunities. One Saudi bank, for example, is looking at where its growth will come from as government investment slows. It is working on how to use technology to engage with a youthful population, how to prepare products for a growing ageing population and how it can use its risk management skills to help governments make the right choices about budget allocation now that money is scarce. Similarly GCC water utilities are focusing on how best to bring in private funding to compensate for the government’s reducing ability to invest as needed.

This would allow them to invest in smart technology to help manage fast-growing water demand and maximise revenue collection – recognising that this desert region cannot continue to have the world’s highest per capita water consumption as well as fast-depleting aquifers and continued growth in desalination.

Prepare to succeed

Understanding how the megatrends are reshaping the world and impacting this region is not just about identifying the challenges ahead, but about understanding the context for action. That context can be complex. The megatrends bundle and collide, creating multiple consequences. Responding to the megatrends means looking at the consequences of change and ensuring that all the pieces are in place to be prepared to succeed in a very different world.
Demographic and social change

The rapid population growth has meant that the region is young, with over 40% of people under 25. The region is now entering a potential sweet spot with a high working age population and relatively few dependents. Reaping this demographic dividend, as Asia did, will depend on those people being in meaningful work and that means revamping education systems to teach relevant skills, creating sufficient jobs, bringing women into the workforce, expanding the role of the private sector and diversifying the economy.

The global population is still growing fast and is expected to reach 9 billion in 2050. But over the past few decades, growth trends have polarised. Ageing and stagnating populations in Japan and much of Europe are compensated by explosive growth and much younger populations in emerging countries. By 2050, that divided picture will have become far more complex, as growth rates slow and ageing populations rise in most of the world.

The Middle East has led the emerging market population boom, along with Africa, in the past decade. Population growth has averaged 70% since 1990, with smaller GCC countries such as the UAE and Qatar housing five times more people now than they did just 25 years ago. Despite a slowdown in the pace of growth, everywhere but in Egypt, the Middle East will still see its population rise almost 50% over the next 25 years, significantly slower than in Africa, but faster than in India.

28%

Youth unemployment in MENA is among the highest in the world at 28%\(^1\)

Unemployment

If the Middle East is able to do this, it could enjoy several decades of solid growth. If it is not, it can expect low productivity and rising levels of joblessness and instability. Already youth unemployment is among the highest in the world at an average of 28%, with rates particularly high among graduates and women. Governments also know that they must move quickly to engage young people to avoid disillusionment setting in.

If we can leverage young people’s talent and brain power, we could take the economy to the next level.
For now, the opportunities for business and the challenge for governments are among the young. But by 2050, the age pyramid will have shifted significantly. Elderly nationals are expected to make up over 20% of the GCC population (compared to just 2% now), higher than the world average of 16%. The challenge (and opportunity) then will be finding sustainable ways to handle pensions and to tackle the healthcare issues of an ageing population that already in its youth has one of the highest levels of obesity and diabetes in the world.

By 2050, elderly nationals will make up 20% of the GCC population compared to only 2% today.

51m

The population of the GCC has doubled over the past 20 years to 51 million in 2015.

Over the next few decades, the Middle East will also grapple with the social impact of women entering the workforce, earning their own money and having a say in their role within both the family and society.

Women already form a majority among university students in many countries in the region and they are gradually starting to play a visible role in both government and business – an enormous change just in the past few years.

Sources:

1 World Bank. 2 UN. 3 World Bank. 4 UN.
Global economic power has shifted with Asia, Africa and Latin America now accounting for more than half of global GDP* and rapidly rising trade and investment flows between these markets. Global economic power has become multipolar.

This shift has placed the Middle East at the centre of many fast-growing markets, with a location that is between Africa and India, but also on the newly emerging Silk Road between China, Central Asia and Europe. Changing trade patterns are evidence of a pivot to Asia, but also to Africa and Latin America. A growing number of Middle Eastern companies are now investing heavily in these markets.

Dubai has managed to leverage this position to attract global talent and turn the city into a global hub for aviation, tourism and logistics, as well as becoming the default corporate headquarters for Middle Eastern operations. Dubai International Airport became the world’s largest airport for international passenger traffic in 2014 and contributes as much as 30% to the emirate’s GDP. The GCC as a whole is becoming a significant force in the global airline industry and GCC air freight levels grew four-fold in the past decade.

GCC economies rely heavily on expatriate workers, who have accounted for much of the population growth and make up the bulk of the population in the UAE and Qatar and a third even in populous Saudi Arabia. The private sector in most GCC countries is heavily dominated by expats. Rising unemployment and the need to streamline inefficiency in public sector organisations means governments are focusing on getting citizens into the private sector, which is causing tensions especially in companies that have built themselves on low-cost expat labour.

The shift in global economic power has placed the Middle East at the heart of fast growing trade flows.

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* measured in purchasing parity terms

Dubai International Airport is the world’s largest for international passenger traffic contributing 30% to Dubai GDP^2
Investment flows to the Middle East region fluctuate strongly, due to oil-driven investment cycles, investors’ perceptions of stability, and unpredictable regulatory regimes. In 2014, investment flows to the GCC were just US$20 billion, four times lower than their peak in 2008 – with half accounted for by the UAE, where investment is rising. The end of the sanctions regime in Iran may see many investors redirecting their attention to this large market, and we’ve seen the likes of Saudi Arabia and Egypt taking steps to improve the governance, transparency and accessibility for foreign investors to mitigate this.

Closer connections between Muslim countries in Asia, Africa and Europe have also encouraged the emergence of businesses supporting the Islamic economy. The GCC and especially the UAE, is starting to play a key role in developing this business globally, especially in the area of Islamic finance.

Middle East middle classes are forecast to grow by 51% to 165.5m by 2020.

Sources:
1 EIU. 2 IATA, Airport Council International, CADA. 3 PwC analysis based on World Bank and Dubai DTCM data. 4 OECD, European Environment Agency.
Just 2% of people lived in cities around the world in 1800. Now it is more than half, and growth rates suggest that, by 2050, some two-thirds of the global population will be urbanised. Put another way, one and half million people are moving to cities each week.

The Middle East has seen the fastest growing urban populations in the world for the past 50 years and longer – with growth consistently higher than in China or Africa. As a result, over 70% of people live in urban areas across the region, bringing it to the level of Europe. The GCC is one of the most highly urbanised parts of the world with 85% of the population living in cities today, expected to rise to 90% by 2050.

The years of sky-rocketing population expansion are over. While growth rates are still above the world average, forecasts show African and even Indian city populations growing faster than the Middle East. The focus now is on how to make urban spaces function optimally so they add to quality of life and productivity rather than becoming centres of crime and instability. Infrastructure development has been rapid, but European cities took centuries to evolve, while our cities have grown rapidly over just a few decades. So we still need significant progress in schools, healthcare facilities, public transport, pollution control, police forces and so on.

Cairo is the 10th largest city in the world, with 20 million people!

The region’s largest city by far is Cairo, with a population of around 20 million and massive infrastructure development and public service needs. The GCC’s smaller cities – Riyadh is the largest at around 6 million people – face fewer extreme social problems, but many are struggling to manage populations that have doubled within the past two decades and are still growing.

Building cities in the desert is limited by water scarcity – it’s a long-term story, but we need to think about it today.
Municipalities need to think about how future growth can be sustainable. Jeddah, for example, faces fatal flash floods when it rains, a shortage of affordable housing and traffic jams throughout the day. Dubai has started to tackle its growth bottlenecks with the introduction of more public transport, city-wide digital services and solar roof panels, but its intensive use of desalination to provide water for its growing population is already creating problems.

Spending on urban infrastructure is a key driver of economic growth throughout the region. While government spending plans are now being reassessed or cut in response to ‘lower for longer’ oil prices, demand for everything from water and electricity to housing and public transport is still rising strongly. As a result, municipal authorities are starting to tap private funding sources, opening up a wide range of opportunities for investors.

Several new cities are in planning or under construction in the Middle East – but progress has been significantly slower and more difficult than anticipated. King Abdullah Economic City in Saudi Arabia, started in 2006, is the most advanced of the country’s four planned new cities, but is little more than 15% complete. Abu Dhabi’s Masdar City houses the campus of the Masdar Institute of Science & Technology, with plans for residential buildings on hold for now. Egypt announced in 2015 that it would build a new capital city, east of Cairo, to house the government and five million people within seven years – but a key UAE investor has withdrawn and the project is being led by the public sector.

$4 trillion
There are over US$4 trillion worth of projects planned or under construction in the Middle East and North Africa⁴

In its Vision 2030, Saudi aims to have three 'top-100' cities by 2030³

Sources:
1 Demographia World Urban Areas 2016. 2 UN. 3 Saudi Arabia Vision 2030. 4 MEED.
Driven by growing evidence of the direct impact of climate change – heat waves, droughts, floods and super-storms – the focus on climate change has returned. After decades of debating, the world’s governments agreed in 2015 to do what was necessary to decarbonise their economies over the next few decades and attempt to keep global warming to below 2°C above pre-industrial levels.

In PwC’s most recent global CEO survey, executives in the Middle East were among the least concerned by the impact of climate change and resource scarcity. The reality, however, is that changing the way humans use the planet’s resources will impact the GCC countries more than most. GCC countries are among the world’s highest users of energy and water per capita. Since we are burning both oil and gas to produce power and desalinated water, we also have the worst carbon footprint. Our economies rely heavily on revenues from fossil fuels and our rain and groundwater resources are depleting.

The pressure to tackle these enormous challenges may appear to be just a result of the ‘lower for longer’ oil price, rather than the realities of climate change and resource scarcity – but the two are increasingly linked and exacerbated by rapid population growth and urbanisation. This realisation is reflected in the flurry of initiatives to cut subsidies on fuel, electricity and water and to ensure the region catches up in solar energy, and so has a chance of sustaining its status as an energy hub regardless of decarbonisation over the course of this century.

Solar energy will account for almost two thirds of the Middle East’s energy mix by 2050.

Until 2015, the Middle East was lagging far behind on developing renewable energy. By the end of 2014, the GCC’s entire installed and planned capacity was just 10% of Belgium’s and less than 1% of Germany’s. But 2015 was a tipping point. Dubai, for instance, tripled its renewable energy target to 15% of the energy mix by 2030, ramping up solar purchase contracts following a tender that came in with the cheapest solar PV prices in the world and making rooftop solar mandatory within 15 years. Abu Dhabi – home to the UN’s International Renewable Energy Agency, and the rest of the GCC, are following suit. The International Energy Agency projects that solar energy will account for almost two-thirds of the Middle East’s energy mix by 2050.

The population of the GCC will have tripled in 50 years but there will not be enough water and perhaps no oil – so what do we need to do now?
**Water will become a significant challenge in the coming decade.** Peak water consumption is forecast to grow by a third in the next five years and, with groundwater depleting rapidly, the GCC relies on desalination for around 70% of its water. The consequences are already being felt: marine salinity has increased significantly, affecting environment and fish stocks; agriculture and food security is being outsourced to countries in Central Asia, Africa and Latin America; and water utilities are starting to look for ways to ensure that people conserve their very expensively produced water, despite paying so little for it.

**GCC relies on desalination for around 70% of its water**

1/3

**Water consumption is forecast to grow by a third by 2020**

**Sources:**
1 UN. 2 IEA. 3 FAO. 4 FAO.
With the pace of technological change accelerating, understanding the impact on every aspect of society and business is becoming a major challenge. The rapid change is driven not only by new technological breakthroughs, but by disruptive business models that use the technology in new ways, rapid consumer adoption and leapfrogging in regions where there is little legacy of technology.

In PwC’s latest global survey, three-quarters of CEOs cited technological change as the most transformative of the global megatrends over the next five years. Interestingly, an even higher share of CEOs in the Middle East region agreed: at 85%, the highest in the world by some distance.

That reflects our strong awareness of the high penetration of consumer technology and its obvious impact – everyone cites the revolutionary use of social media in the Arab Spring in 2011 – but also the recognition that most companies and government entities are struggling to develop digital strategies to leverage this potential.

Our region has many of the right ingredients to benefit from new technologies. The young population is tech-savvy. The adoption of social media is among the highest in the world. Saudi Arabia and the UAE ranked fourth and seventh globally, respectively, in 2015 for active Twitter usage. The Middle East is also moving straight to mobile, with the GCC among the world’s leaders in smartphone penetration and the share of mobile broadband connections.

GCC smartphone penetration is among highest in the world reaching 78% in the UAE.

But businesses are lagging in terms of digital innovation, research & development (R&D) and the development of new technologies, key elements for global competitiveness in the coming decades. E-commerce is still small, with most transactions that start online closing offline. Despite a significant increase in spending over the past five years, R&D expenditure in Saudi Arabia and Abu Dhabi is still below 1% of GDP, far behind the OECD average of 2.4%, not to mention innovation leaders such as South Korea and Finland which spend well over 3% of their GDP on R&D.

We need to accelerate the ability to leverage and commercialise technology, diversity the economy and become competitive.
This is reflected in the **tiny share of high-tech exports coming out of the region**. A number of public sector initiatives are underway to tackle this. A clutch of new universities in Saudi Arabia, the UAE and Qatar have created innovation zones, for example, with the aim of attracting global technology firms and developing clusters of start-ups around them.

**R&D $1%**

R&D expenditure in **Saudi Arabia** and Abu Dhabi is still below 1% of GDP compared to the OECD average of 2.4%³

**90%** of the data that exists today was created in the last two years³

These have already had a noticeable impact on patent applications, with the level growing five-fold in the five years to 2013 in these countries. That is, however, still five times lower than in China. We still need to **focus on removing the bottlenecks at all stages in the value chain** – education, incentives, legal framework, financing, entrepreneurial support and commercialisation.

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**Sources:**
