Public safety in MENA: fit for the future
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The oldest justification for government is as a protector, and the responsibility to keep citizens safe remains at the heart of every administration. In this report, we examine how public safety agencies in the Middle East and North Africa (MENA) can ensure they have the necessary skills and tools to uphold this responsibility in the future.

We have given significant thought to the future through the identification of five global megatrends and development of our ADAPT framework. In this report we analyse the public safety implications in our region of the megatrends – the most important macroeconomic, social, environmental and technological forces shaping the development of the world. PwC identifies these as: demographic and social change; shift in economic power; rapid urbanisation; climate change and resource scarcity; and technological breakthroughs.

These megatrends, by their nature, require collaborative responses across governments internationally. However they also provide a sound basis for public safety planning in MENA, especially in the areas in which new capabilities may be required.

We at PwC Middle East regard building trust in society as our primary goal. This report is intended to help public safety agencies prepare for the future and, in doing so, enable governments in the region to continue to deliver on their most important duty: safety.

Rami Nazer, Government & Public Sector Leader
Megatrends and public safety – at a glance

What is a megatrend?

- Macroeconomic, social, environmental and technological forces reshaping the world in which we live
- Factual and backed by verifiable data
- Large in scale, they create a huge impact and include some of society’s biggest challenges

What is public safety?
Public safety is the protection of citizens, organisations and institutions against threats to their well-being within the nation’s borders. It should foster an integrated approach to emergency management, law enforcement, correction, crime prevention and border security.

Demographic and social change
MENA public safety challenge: reducing the risk of crime and radicalisation among young people

Shift in global economic power
MENA public safety challenge: maintaining border security without impacting genuine cross-border activities

Rapid urbanisation
MENA public safety challenge: ensuring effective responses to emergencies and calls in a way that fosters public support and confidence

Climate change and resource scarcity
MENA public safety challenge: securing critical infrastructure from catastrophic events (natural and criminal)

Technological breakthroughs
MENA public safety challenge: developing police capabilities and reducing harm in the digital world
**Megatrend 1: demographic and social change**

Demographic and social change has driven both prosperity and instability in much of the MENA region. The Middle East has led the emerging-market population boom over the past decade and this explosive population growth has boosted economies yet strained resources and contributed to youth unemployment.
The rapidly growing number of young people in the MENA region with limited economic prospects or access to education is fuelling significant public safety challenges. Lack of opportunities creates social discontent, crime, violence and makes individuals vulnerable to radical ideologies.

A study conducted by the department of economics at Kennesaw State University found that youth unemployment increases the incidence of domestic terrorism in MENA countries, based on an assessment of terrorism incident data from 1998-2012. This is especially concerning given that youth unemployment in the region for those aged 15-24 is the highest in the world.

The effects of youth ‘bulges’ – or large numbers of young people relative to the overall population size – on increased levels of domestic armed conflict have been the subject of numerous studies over the years, with robust correlations proven.

Implications for public safety

1. Prevalence of delinquent behaviour in young people

According to the School of Criminology and Criminal Justice at Arizona State University, youth crime peaks at around age 17 and rapidly declines after that point, then continues to decline the older people get.

2. Youth unemployment as a destabilising force

The rapidly growing number of young people in the MENA region with limited economic prospects or access to education is fuelling significant public safety challenges. Lack of opportunities creates social discontent, crime, violence and makes individuals vulnerable to radical ideologies. A study conducted by the department of economics at Kennesaw State University found that youth unemployment increases the incidence of domestic terrorism in MENA countries, based on an assessment of terrorism incident data from 1998-2012. This is especially concerning given that youth unemployment in the region for those aged 15-24 is the highest in the world.

The effects of youth ‘bulges’ – or large numbers of young people relative to the overall population size – on increased levels of domestic armed conflict have been the subject of numerous studies over the years, with robust correlations proven.

Youth bulges and domestic conflict (World Bank)
How can public safety agencies respond?

An effective youth justice system

To tackle the challenge of higher rates of offending among a large young population, it is imperative to have a youth justice system that intervenes quickly and works to rehabilitate young offenders at the earliest possible stage. On reviewing leading practice, we have identified six core elements that make up an effective juvenile justice system, shown in the graphic on the right.

In the graphic below, we set out the key parties involved in successfully preventing and limiting juvenile offending.

Effective partnerships to support reducing juvenile delinquency

Governments  Education facilities  Mass media  Healthcare providers  Social workers  Families/community
Case study: problem-solving courts

Background

The Centre for Justice Innovation (CJI) defines problem-solving courts as those in which rehabilitation is the main focus for judges. They function as part of court systems already in place, but assimilate the authority of the court with the non-judicial services such as the use of treatment or social services, to reduce reoffending and effectively improving outcomes.

According to a CJI evidence review, problem-solving courts have a number of distinct features which include: specialisation of the court model around a target group; collaborative intervention and supervision; accountability through judicial monitoring; a procedurally fair environment; and a focus on outcomes. These features improve the legitimacy of the justice system in the eyes of the groups such courts are serving.

Where this system could be applied

The CJI’s review suggests that a number of areas of the criminal justice system benefit from implementing the framework of a problem-solving court:

- **Adult drug courts**
  Reduces substance misuse and reoffending.

- **Reduces parental substance misuse and the number of children permanently removed from their families.**

- **Domestic violence courts**
  Positive victim safety and satisfaction outcomes recorded with a promising ability to reduce the frequency and seriousness of a perpetrator reoffending.
**Megatrend 2: shift in global economic power**

Shifts in global economic power have placed the Middle East firmly at the centre of the world’s fastest-growing markets and have allowed Dubai, in particular, to transform into a global hub. Through Dubai International Airport, the Emirate has also turned itself into a key transport hub, connecting the economies of the east and the west and facilitating the flow of more money, more cargo and more people through the MENA region. As the region increasingly becomes an exporter of capital, talent and innovation, the direction of capital flows is being adjusted.
Implications for public safety

1. Facilitation of money laundering

The vast number of exchange houses, money services businesses and general trading companies in the MENA region, together with the region’s complex regulatory environment, present considerable challenges to combating money laundering. Additionally, the real-estate sector, access to the international gold and diamond trade, and the use of couriers to transfer illicit funds and substances further exacerbate the vulnerabilities in the region, according to the Financial Action Task Force (FATF).

2. Illegal immigration and people trafficking

Trans-regional trafficking flows 2012-2014
(UNODC)
A 2017 report by the International Labour Organization stated that the Middle East is one of the major recipients of low-skilled migrant workers. The six countries of the Gulf Cooperation Council (GCC) alone are host to more than 22 million migrants. While the GCC countries have endeavoured to combat the exploitation of migrant workers, the region is inherently susceptible to human trafficking due to the sheer volume of the people flow, according to research by Saint Mary's University, London.

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2017 Basel Institute anti-money laundering high risk rankings

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
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<tbody>
<tr>
<td>Iran</td>
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</tr>
<tr>
<td>Lebanon</td>
<td>27</td>
</tr>
<tr>
<td>Sudan</td>
<td>29</td>
</tr>
<tr>
<td>Yemen</td>
<td>37</td>
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</tbody>
</table>
How can public safety agencies respond?

Effective border management
A well-run border management arrangement should facilitate the entry of people and goods with a legitimate purpose while simultaneously identifying and stopping those who pose a threat to the nation’s security. The International Organisation for Migration (IOM)’s migration governance framework (MiGOF) outlines three principles that are essential for well-managed migration (shown below) as well as four suggested actions to promote the balance between facilitating cross-border movement and upholding national security. These are: identity management, border management information systems, integrated border management and humanitarian border management.

IOM’s three principles of well-managed migration

- Adherence to international standards and the fulfilment of migrants’ rights
- Use of evidence and whole-of-government approaches
- Strong partnerships

Strong anti-money laundering arrangements
The Financial Action Task Force (FATF)’s recommendations are universally recognised as the international standard for anti-money laundering and countering the financing of terrorism (AML/CFT). The original FATF 40 Recommendations were drawn up to combat the laundering of drug money, but have since been revised to broaden their scope and strengthen the requirements in higher-risk situations. The OECD also points to the importance of developing comprehensive arrangements through looking at these 10 global principles:

- Ensure Offences are Criminalised
- Devise an Effective Strategy
- Have Adequate Investigative Powers
- Have Effective Powers to Freeze, Seize and Confiscate Assets
- Put in Place an Organisational Structure with Defined Responsibilities
- Provide Adequate Resources for Investigation
- Make Tax Crimes a Predicate Offence for Money Laundering
- Have an Effective Framework for Domestic Inter-agency Co-operation
- Ensure International Co-operation Mechanisms are Available
- Protect Suspects’ Rights
Case study: the Department of Homeland Security’s success in securing US borders

The US Department of Homeland Security implements a number of trusted traveller programmes in an effort to continually protect the country’s borders while facilitating the entry of genuine goods and people:

Trusted traveller programmes such as NEXUS, SENTRI and Global Entry provide accelerated screening at ports of entry for frequent travellers, allowing personnel to pay closer attention to those with whom they are unfamiliar.

Customs and Border Protection have increased enrolment in their trusted traveller programmes from approximately 80,000 members in 2003 to more than 1.3 million in 2018.
Megatrend 3: Rapid urbanisation

Approximately 55% of the world’s population live in cities; by 2050, the UN projects that an additional 2.5 billion people could be living in urban areas. The MENA region is one of the world’s most urbanised and its urban population is expected to grow by 1,500 people a day for the next 35 years. According to the UN, by 2050, 90% of the GCC population will be urbanised – that’s 20 million more people than today.¹³

These urban populations are also becoming more diverse. According to the Dubai Statistics Center, in 2017, more than 90% of residents in Dubai came from countries other than the UAE.¹⁴
Implications for public safety

1. Large concentrated populations create vulnerabilities

Big centres of population lead to large concentrations of people, physical assets, infrastructure and economic activities that create a number of vulnerabilities.

Rapid and unplanned urbanisation results in severe challenges in the following four areas, according to the World Economic Forum’s 2018 Global Risks Report: social instability, resource scarcity, climate change and infrastructure.

2. Legitimacy of public safety agencies

It is vital for a nation’s law enforcement to mirror the diversity of the community it serves. According to a 2016 report by the US Department of Justice and the Equal Employment Opportunity Commission, increased diversity within law enforcement aids in building trust within communities and instills public confidence. This is achieved when members of the public have faith that their law-enforcement groups represent them, understand them, respond to them and authorities are viewed as just, legitimate and answerable. This trust is crucial to resolving tensions and solving crimes.
How can public safety agencies respond?

**Effective command and control arrangements**
Command and control arrangements should be centralised within a specific jurisdiction to ensure coordinated responses, and use data and surveillance capabilities to inform predictive deployment. The following diagram highlights best practices in establishing an effective command and control centre:

![Diagram showing the target: a single body that commands and controls all public safety activities through leading technologies, efficient and effective integration, and a resilient and capable workforce.]

**Procedural justice training**
Procedural Justice focuses on the way public safety agencies interact and communicate with the public, and how those interactions shape the public’s views of the police, their willingness to obey the law, and actual crime rates. Mounting evidence shows that community perceptions of procedural justice can have a significant impact on public safety; and training public safety officers in these areas can have a significant impact.
Findings from a Campbell systematic review

A systematic review of 30 evaluations by the Campbell Collaboration of interventions by the police intended to improve the citizen perceptions of police legitimacy found that they had a significant impact on public satisfaction with, and confidence in, the police. Such interventions are also associated with significantly increased public compliance/co-operation, procedural justice (fairness, neutrality, etc) and legitimacy (obligation to obey police/law). Interventions also had a minor effect on reoffending.

(Campbell Collaboration)
Megatrend 4: climate change and resource scarcity

Climate change and resource scarcity is a pressing issue for the Middle East and the GCC region in particular, given that GCC countries are among the world’s highest consumers of energy and water per capita. The Food and Agriculture Organization (FAO) has pointed out that water in particular, will become a significant challenge in the coming decade, with the GCC already relying on desalination for 70% of its water, and water consumption forecast to grow by one-third by 2020.
Water stress by country in 2040

According to the Foundation for Water Research, the Middle East is home to 53% of the world’s desalination plants and the critical infrastructure (CI) developed to manage these plants is vital. Further, the considerable dependency of water CI on other types of CI can be damaging to a nation.

Implications for public safety

1. Vulnerability of critical infrastructure

According to the Foundation for Water Research, the Middle East is home to 53% of the world’s desalination plants and the critical infrastructure (CI) developed to manage these plants is vital. Further, the considerable dependency of water CI on other types of CI can be damaging to a nation.
A 2018 study by the World Resources Institute found that 11 of the 20 most likely water stressed countries are in the Middle East and this number is expected to increase by 2040, including 9 considered extremely highly stressed with a score of 5 out of 5: Bahrain, Kuwait, Palestine, Qatar, UAE, Israel, KSA, Oman and Lebanon. The UN World Tourism Organization says in addition that the Middle East is vulnerable to warmer summers and further water scarcity in the coming decades. Further, the US National Intelligence Council believes that water difficulties will put key MENA countries at greater risk of instability and state failure.

With a global population of 8.3bn we will need…

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<tr>
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<td>More water</td>
</tr>
<tr>
<td>35%</td>
<td>More food</td>
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2. Exposure to catastrophic events

According to Gilbert et al, 2003, the risk of potential terrorist attacks on water infrastructure has become increasingly substantial as the world’s population has grown. Additionally, Gleick and Heberger, 2014, record that there were 162 documented attacks on water-critical infrastructure between 1980 and 2012. As the MENA region is heavily dependent on desalinated water, which is also costly to produce, a terrorist attack or natural disaster affecting desalination plants would be potentially catastrophic.

Recorded attacks on water-critical infrastructure (Gleick and Heberger)

<table>
<thead>
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Effective critical infrastructure protection
Resilient critical infrastructure allows the continued provision of essential services and supports security, economic prosperity and social integrity, making effective critical infrastructure protection (CIP) essential.

How can public safety agencies respond?

The chart below shows the five key elements:

- **Physical security**: Bringing consistency to the risk-assessment process through publication of government guidelines.
- **Emergency management**: Coordinated, reliable and strong communication channels are critical.
- **Process safety**: Primarily focused on establishing clear standards.
- **Managing natural hazards**: Robust process-safety measures coupled with forecasting/early-warning systems and response arrangements provide coordinated and systematic approaches to aid in the identification and assessment of natural hazard risks.
- **Cyber security**: Very clear focus and holistic approach to protection of systems, networks and data in cyberspace with several agencies involved in the delivery of prioritised action plans.
Case study: Oklahoma’s regional response system

The Oklahoma Office of Homeland Security created a statewide system of specialised units capable of responding to chemical, radioactive and natural disasters, among others. Regional response system (RRS) units are strategically placed throughout Oklahoma so they can respond to incidents in any area of the state within two hours.

When a severe tornado struck communities in Newcastle, Oklahoma City and Moore on May 20, 2013, Oklahoma activated 33 regional emergency medical-services teams which were able to respond immediately after the tornado touched down. One unit arrived on-scene at the destroyed Moore Medical Center 10 minutes after the tornado passed through the area and established response operations at the nearby Warren Theater. During the eight-hour response operation, the units also provided generator power to the medical station, lighting for citizens and responders in the area and medical supplies for patient treatment and transportation.
Civil contingency arrangements
A nation should have tested civil contingency arrangements in place to manage the potentially damaging consequences of increasingly complex risks resulting from the range of natural hazards affecting our planet. Public Safety Canada has outlined the four phases involved in an effective emergency plan as follows:

- **Prevention & mitigation**: Reduce potential risks
- **Preparedness**: Effective and coordinated approach in place
- **Response**: Effective and integrated response in accordance with established strategic priorities
- **Recovery**: Restoration and continuity of critical services and operations
Megatrend 5: technological breakthroughs

Internet use is exploding globally, with 3.8 billion people online in 2017 (51% of the world’s population). Cybersecurity Ventures predicts that there will be 6 billion internet users by 2022 and more than 7.5 billion by 2030. However, the prevalence of internet usage, coupled with the growth in the Internet of Things (the network of physical devices, vehicles and other items with the ability to connect and exchange data), has provided a whole new domain for crime. Cybercriminal activity is one of the most significant challenges the global community will face in the next two decades: the Centre for Strategic and International Studies (CSIS) estimates that by 2021, cybercrime will cost the world between 0.8 and 1% of global GDP. Cybersecurity Ventures predicts cybercrime will be more profitable than the global trade of all major illegal drugs combined.
Implications for public safety

1. The internet’s role in spreading radical ideologies

The global reach of the internet and social media platforms has created a considerable propaganda and recruiting medium for radical groups seeking to spread their message to disillusioned populations around the globe. A 2017 UNESCO report found 20.5% of all authors of social media content about radicalisation are based in the MENA region.
2. Increase in cybercrime

In recent years there has been a dramatic increase in unlawful cyber-security breaches and infiltrations. In 2016, PwC found cybercrime to be the second most-reported crime and IDG detected 38% more cybersecurity incidents in 2015 than the previous year22.

The MENA region is leapfrogging fixed internet and moving straight to mobile, with an abundance of young, tech-savvy populations in countries such as the UAE resulting in 78% smartphone penetration. This is of concern in relation to cyber-security because Symantec reported that mobile platforms are one of the fastest-growing targets for cyber-criminals. In 2017 alone, Symantec blocked an average of 24,000 malicious mobile applications each day and the number of new mobile malware variants increased by 54% in 201723.

Internet crime is a lot harder to measure and relatively few sophisticated protocols are in place in comparison with traditional crime. According to the World Economic Forum’s Global Risks Report 2018, a significant portion of cybercrime goes undetected because illicit access to sensitive or confidential documents and data is so hard to detect24.
How can public safety agencies respond?

**Effective cybercrime capabilities**

Technological breakthroughs are creating new opportunities for intelligence processing. Data and analytics can enhance the investigative capabilities of public safety organisations in combating crime and threats through an evidence-based approach. PwC’s technology-enabled, proactive model calls for co-operation within companies and with peers and governments:

1. Establish monitoring agencies for critical infrastructures in order to support the identification of and response to attacks before they turn into crises.

2. Fostering collaboration among competitors at the industry level to allow the exchange of information, with the government acting as a broker. This guarantees a safe exchange, while making the industry more resilient.

3. Establish awareness programmes for the general public in order to increase their digital health.

4. Foster the usage of open-source software in cases in which the country is a net importer of critical technology solutions in order to minimise the reliance of IP from potentially hostile countries and achieve full transparency about the potential risks.
On 12 May 2017, the WannaCry ransomware attack affected more than 200,000 computers in 150 countries, including systems within 47 UK National Health Service (NHS) Trusts, leading to significant disruption for patients.

**Government response:**

**Strategy:** the 2015 National Security Strategy described cyber-risk as a ‘top tier’ threat, making it a government priority. To fulfill this commitment, the government published the National Cyber Security Strategy 2016-2021.

**Coordinated expertise:** the National Cyber Security Centre (NCSC) was established in 2016 as part of the Government Communications Headquarters (GCHQ) intelligence-gathering agency. It brings together cyber-expertise from a wide range of previously disparate organisations.

**Investment:** the government has committed to spend £1.9 billion over the next five years on policies to protect the UK in cyber-space.

**Personnel:** 250 new entry-level cyber-security jobs have been created through the Tech Partnership. The government has also worked with employers to create apprenticeship frameworks in cyber-security, such as GCHQ’s 50 Fast Track Apprenticeship places.

**DMARC:** Domain-based Message Authentication, Reporting and Conformance (DMARC) is an NCSC initiative which has helped UK Revenue and Customs to prevent eight million phishing emails from reaching its customers. It is being rolled out across government agencies.

**Removing fraudulent websites:** in the past year the NCSC worked with UK Revenue and Customs and internet service providers to remove 13,600 fraudulent websites that were infecting users’ devices and stealing information.
In addition to the specific public safety responses already mentioned, there are two main cross-cutting themes that shape a public safety agency’s plan of action: predictive technologies and workforce planning.

1. Predictive technologies

As discussed in the previous chapter, there are public safety challenges that accompany technological breakthroughs. However, there is an array of opportunities present as well. The same data that has disrupted traditional policing has the ability to disrupt criminality and shift the policing model from a reactive model to one that is more proactive.

The most effective police forces will be the ones that are agile enough to take advantage of big data analysis in order to better anticipate crime, which in turn will enable them to better respond to and prevent criminal activity.

This data-led model is called predictive policing and can be used to calculate risks in relation to a crime using models and relevant data.

The definition and enforcement of clear data formats, standards and interfaces and the access to private-sector data to support these advanced analytics will provide the grounds for a serious boost in predictive capabilities.

Data-led policing makes it possible to forecast where incidents are most likely to occur and due to this predictive ability, governments are able to:

1. Utilise resources effectively
2. Reduce risks and prevent crime
3. Focus on places rather than people
A partnership between the Rutgers University Center on Public Security (RCPS) and the Atlantic City Police Department (ACPD) carried out a pilot project that sought to collect data, test the predictive validity of risk terrain modelling (RTM) and establish multi-stakeholder buy-in.

Full implementation of risk-based policing began in 2017 and the rollout occurred in two phases. In Phase 1, RCPS worked closely with ACPD commanders to run risk terrain models, communicate analytical results, facilitate taskforce meetings and help develop operational strategies for crime prevention and risk reduction.

In Phase 2, ACPD assumed most of the responsibility for disseminating analytical results and developing risk-reduction strategies.

Results:

- **36%** reduction in violent crimes during FY17
- **$1.6 million** in cost savings to the local criminal-justice system
- Arrests did not increase because the risk-based policing strategy focused primarily on places not people
2. The People Agenda

In all of the scenarios that we have identified, having the right people at the right place is essential. This suggests that it is crucial for public safety agencies to pay close attention to two broad areas: workforce planning, to ensure adequate resources are deployed; and capability building, to ensure the right capabilities are present to minimize the public safety challenges.

Tackling the capability challenge

Public safety agencies should be asking themselves the following questions in order to identify how best to leverage their capability:

- What skills, capabilities, behaviors and competencies do we need?
- Which types of employees are most critical to the success of this unit?
- What kind of changes, with which group of employees, would make the most difference in agency performance?
- Do we know what rewards our high performers value most?
- Are our value propositions effective in attracting, motivating and retaining the right employees with the right skills at the right cost?
- Do our organisational structures support our talent needs?
- Which parts of the people strategy should be determined centrally and which should be determined at the level of the agency?

Workforce-planning success factors

A workforce-planning exercise should include these five critical components:

- Analytics
- Data
- Skills
- Implementation
- Demand
Case Study: Professionalisation of Police Officers

Research at Curry College has shown that education has yielded positive impacts on police officers’ abilities and performance where college-educated officers developed better skills and delivered better outcomes.25

**Skills:**

- Better communication and report writing skills
- Better understanding of policing and the criminal justice system
- Better comprehension of civil rights and more tolerance towards citizens
- Better utilization of problem-solving skills and innovative techniques

**Outcomes:**

- Improved Trust & Confidence in Policing
- Officers less likely to use deadly force
- Fewer preventable accidents
- Less sick time away from work
Looking beyond Public Safety with our ADAPT framework

Responding to the strategic opportunities and threats imposed by the megatrends
In this document we focused on the public safety implications of each of the five megatrends, to help inform longer-term planning and preparations as the world continues to be reshaped by these forces. Having the necessary skills, knowledge and tools is essential for ensuring effective public safety, and, with the Middle East being at the epicenter of these long-term trends, public safety agencies will need to continually assess and evolve their capabilities to respond to emerging opportunities and threats.

We recognise that the impacts of these megatrends are already upon us, and are actively reshaping realities across many aspects of life here in the Middle East. As we work with governments, policy makers, corporates and family businesses across a range of different industries, the recurring question is not when will megatrends hit, but how and what should we do today.

Our answer is to focus on the near-term manifestations of the trends and the challenges confronting us, using a framework known as ADAPT.

You can read more about these at https://www.pwc.com/m1/en/issues/adapt.html
1. https://www.pwc.co.uk/issues/megatrends.html
8. https://index.baselgovernance.org/ranking
17. https://www.pwc.com/m1/en/issues/megatrends.html
18. Luo, Tianyi. World Resources Institute, “These 20 Water-Stressed Countries Have the Most Solar and Wind Potential”, https://www.wri.org/blog/2018/05/these-20-water-stressed-countries-have-most-solar-and-wind-potential
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**Government strategy and operations**
- Develop and implement strategies and policies
- Improve public security and safety
- Develop partnership frameworks with public and private entities
- Enable transformation
- Enhance public services
- Improve position within international indices

**Cybercrime**
- Digital Security and Crime management
- Cyber Security
- Next generation environmental control and video-surveillance solutions with advanced analytics
- Physical security information management
- Governance, risk and compliance management
- Cloud, IoT & infrastructure to support public safety

**Workforce planning**
- Attract ‘world class’ talent
- Invest in line with people’s priorities using our “TrueChoice” tool
- Provide compensation systems that ensure employee satisfaction and commitment
- Develop long-term growth plans
- Identify alternative value-generating scenarios

**Training**
- Institutional implementation
- Market entry and growth strategy
- Education digital transformation
- School quality improvement and regulation
- Strategy and policy development and implementation
- Our Training Institute – PwC Academy

**Technology and digital**
- Digital proof of concept and product concept
- Digital strategy and transformation road-maps
- Digital operating models
- Business and partnership models design (PPP)
- Enterprise architectures
- Big Data and data analytics strategies, design and execution
- Digital product design and build
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