Driven by digital
How city transport networks can stay on track

Power shift
Devolution and economic development

State security
Extending resilience in the face of threats

Rio’s grand plan
How the Olympic city is building for the future
How can we build a secure legacy in an ever more unpredictable world?
Welcome to the latest edition of Citizen Today, EY’s magazine for government and the public sector.

Each generation is comforted by the idea that it will leave the world a better place for its children. From parents helping to equip a child with skills and characteristics that will enable it to thrive, to national leaders shaping an economy and society that is stronger than before, the idea of leaving a positive legacy is a powerful human force. But in many parts of the world, few can be confident that the next generation will enjoy a better life. Climate change, rising inequality, war, terrorism, technological transformation, falling living standards, job insecurity, demographic change and the lack of access to housing are some of the factors that threaten the pattern of progress.

This edition of Citizen Today explores how policymakers and administrators can approach some of these challenges and create legacies that are positive and lasting.

Our cover story (page 18) investigates legacy planning by the organizers of this summer’s Olympic Games in Rio de Janeiro. Hosting major events such as the Olympics offers the opportunity to reshape how citizens and visitors alike experience a city. Better transport, more investment, improved social and leisure facilities – all are potential prizes for the host. But, as our feature shows, they are as hard-earned as the medals that will be presented to the winning athletes on the podium.

The operator of Oslo’s metro system used to keep the city’s people moving by horse and cart. The combustion engine and electrification ensured that subsequent generations traveled with greater speed and comfort, but now the city’s transport system has entered the digital age. On page 6, we find out how the transport operator is meeting the challenge of a rising city population by deploying the latest data and analytics techniques to improve the reliability and capacity of its services.

Legacy builders need a strong and secure base on which to work. However, governments, communities and businesses alike are exposed to potentially catastrophic threats such as extreme weather, terrorism, war, organized crime and cyberattack. On page 10, we examine better ways to manage the risks of these shocks and build resilience.

At current rates of progress, it will take more than a century for women to achieve gender parity in the workplace. Three generations is too long to wait for a legacy of equality. On page 14, we discuss how technology can bring about greater diversity in public life.

On page 24, we meet an Indonesian entrepreneur who has built a global business and set up an academy to inspire future generations – and all this before his 33rd birthday. While his legacy is already secure, we explore how governments, businesses and entrepreneur networks can work together to develop more people who will create the jobs needed by the growing number of young workers in emerging markets.

For governments to achieve results, sometimes it is necessary to give power away. On page 28, we report on the UK’s attempts to rebalance its economy away from the financial center of London and the South East by spurring economic growth in other regions. The catalyst for this development is a series of devolution deals that offer cities more power to develop infrastructure, manage budgets and attract investors.

Technology gives today’s children unprecedented opportunity to explore and communicate. But, while they are online, so too are those who aim to harm them. On page 32, we report on attempts to coordinate an international response to the threat of online child sexual exploitation.

It is not inevitable that the current generation will leave a better world for the next. But it never has been. Throughout history, inventions, discoveries and advances have been hard-fought. But by understanding the forces that are reshaping our world today, and formulating creative responses, a strong legacy is within our grasp.
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About EY
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Door to a better future

A metro train pulls into a station in Oslo. The metro operator is using data and analytics to improve and expand its services.
Ronny Seehuus meets the chief information officer of the main transport operator in Europe’s fastest-growing capital city, and finds out how the CIO is harnessing data analytics to help meet growing passenger demand.

It is 8.15 a.m. in one of Europe’s busiest cities. A packed subway train glides into a station. The doors open and the carriages swallow more passengers before the driver is ready to continue the journey. But one of the doors jams. The train can’t proceed and a thousand passengers are belched out onto the platform. The knock-on effect delays other trains along the subway line. Commuters roll their eyes wearily, curse the transport system and prepare their excuses as they arrive late for work.

In a different city, at the same time, another busy subway train stops to pick up more passengers. A few weeks ago, the door mechanism on one of its carriages had been weakening. But the sensor on the door motor recorded an increase in the power required to open and close the door. An analyst understood that the door mechanism was no longer operating properly. They compared data from the sensor with historical information, and concluded that the door was likely to fail within the next month. They ordered a replacement, which was fitted a week later as part of a routine service. The driver checks to see that all the passengers have boarded. The doors close, a thousand commuters continue on their way and arrive ready to start work on time.

**From horsepower to data-driven**

Urban transport systems are complex. They must deal with huge rush-hour spikes in demand, and depend on the reliability of rails, signals, rolling stock, technology and people. But collecting, analyzing and forming insights from data can go a long way to helping ensure that the subway trains run on time. This is clear from the story of Sporveien, a public transport provider wholly owned, and funded, by the municipality of Oslo.

Sporveien’s origins can be traced back to 1875, when horse-drawn tram cars helped to keep the city moving. Today, it is responsible for operating Oslo’s tram and metro lines, most of the city’s bus lines, and for the construction and management of infrastructure, including tracks.

But in recent years, Sporveien hasn’t enjoyed a smooth ride. Oslo is Europe’s fastest-growing capital city. Its population is rising by around 2% a year. Plagued with inefficiencies, lack of innovation and an excess of bureaucracy, Sporveien was unable to respond to the demand for more journeys. By 2009, it became apparent that its operating model was not sustainable. Taking inspiration from Stockholm, where a Chinese company operates the city’s metro, Oslo’s authorities threatened to open the market to competition from private companies outside Norway.

Sporveien responded with a bold plan to transform itself from a bureaucracy into a business. Under its five-year Best2015 strategy, established in 2010, it rebranded, recruited a new executive committee from the private sector and implemented a plan to make efficiencies. It has made enormous strides by introducing “lean” principles into its business lines and improving, modernizing and reorganizing its support functions, including IT.
Christian Thindberg is one of the executives hired by Sporveien in 2010. As chief information officer (CIO), his role is to transform how the organization uses technology. “This is an ongoing process,” says the CIO, “and it is not near finishing.”

“Sporveien is 140 years old and, like many transport companies, it is very traditional. When I took on the job, I found that the basic IT infrastructure was old, brittle and not properly managed.” Thindberg knew that, for a transport company, technological development had the potential to bring radical positive change. But this seemed a long way off in 2010. So, how did he approach the task? “The first priority was, of course, to update the technology itself. But it is also crucial to make sure that the organization embraces these changes, and that the technological advances actually bring about a change in people’s everyday working lives.” Servers and data systems were modernized. The enterprise resource planning system, which had been frozen in time for a decade, was renewed, along with human resources systems.

These new and updated systems have allowed Sporveien to stabilize operations, collect quality data and prepare to use its information to create valuable insight into its business. But, as Thindberg says, this is just a base on which to build. The next stage is to develop these insights. EY’s data and analytics team is helping Sporveien to do this. The prize is a better-run organization and a smarter, more reliable, transport system.

Prevention over cure

As part of its improvement program, Sporveien has researched best practice and benchmarked more than 30 public transport providers around the world. It has learned about the potential benefits to be gained from the insight that may be created from its own data. EY has helped Sporveien to clarify, structure and formalize these learnings into a vision for enterprise intelligence, with special focus on analytics. EY is helping to establish the capabilities and framework that will support Sporveien’s attempts to handle massive quantities of data and turn it into information and insight.

Sporveien currently spends an enormous amount of time collating spreadsheets and digging in unreliable data sets, looking for answers to simple questions. Most of its reporting of data comes from single operational systems or manual collation. At the current stage of its journey to advanced analytics, Sporveien can use its data to determine, for example, how many of its rolling stock’s door-closing mechanisms have failed and how often this occurs. As its analytics capabilities grow, it will be able to establish the cause of failure and anticipate when the mechanisms will need to be fixed.

“We are moving to condition-based maintenance, where the cars themselves give us information,” says the CIO. “We are now able to download information from trains wirelessly and, in principle, continually.” Ultimately, analytics will help Sporveien to track the performance and efficiency of mechanisms in its rolling stock and ensure that they are replaced before they fail. “We have invested in predictive analysis tools that enable us to monitor performance trends and predict when a breakdown is likely to occur,” says Thindberg. This is enterprise intelligence in action.

Sporveien’s progress on analytics will be realized in part through using sensor data. As well as metro trains, trams, track and inventory are all other plausible sources. Recognition software from cameras is also important,
because cameras act like sensors. They capture an image, and the associated software recognizes something – a person, an object, an event, a sequence – and registers a data point. These data points are indicators from the real world and can be used just like readings from an electronic sensor to form insights on factors ranging from passenger flow to the cause of a breakdown.

One aspect of wise information use is how the information is presented to a user. Humans are very good at recognizing patterns in clean, high-contrast visual presentations of information. We are not so good at discovering patterns in lists of information or rows of a data table. Analytic models and machine learning will help, but computers are still not capable of the same pattern recognition that comes easily to people. Using a tool called Tableau, EY has introduced data visualization at Sporveien to take advantage of this essential human trait. Those at Sporveien who regularly report on information quickly saw the benefit. They soon discovered trends and correlations of which they were previously unaware.

The technology journey may have some way to go, but the results are already impressive. Performance is improving. Sporveien estimates that, since 2010, it has made efficiency gains of NOK2 million (€208,000) per week. Technology is not the sole driver of efficiency, but it has played a significant role.

A smart future

Predictive asset maintenance, such as the train door example, and other capabilities enabled by analytics are the start of Sporveien’s contribution to Oslo becoming a smart city – a connected and responsive urban center powered by advanced analytics. Other industries have much to contribute. Telematics, where sensors in an automobile reveal driver behavior, will enable insurance providers to better insure the city’s drivers; smart metering means that its properties can be heated more efficiently; loyalty analytics and capture of usage patterns mean that retailers will improve shopping in the city; and e-health and data from biomonitors will improve diagnosis of citizens’ health problems and the supply of medication.

Wherever devices and components are connected to the internet and can tell you about their surroundings and events that occur, data can be stored, compared, enriched and analyzed against historical records to predict the likelihood that some future outcome will be realized.

This year sees the opening of a new line on the Oslo Metro, which reduces congestion through the central city tunnel and creates opportunities for new routing schemes and service offerings. However, to realize the benefits, Sporveien must increase the number of metro carriages in everyday use. For this to happen, they will need to spend less time being serviced and more time on the tracks.

Sporveien will use the insights gained from the analytics program to help it reduce the number of carriages that are withheld from service due to maintenance, shorten the time required to investigate problems and make earlier, more accurate, diagnoses. “With better diagnosis of faults, we can be more precise in servicing,” says Thindberg. “We’ll be able to carry out maintenance when trains are resting at their end station, rather than have to take them out of service and send them to a workshop where it would take time to diagnose and fix the problem.”

“**We’ll be able to carry out maintenance when trains are resting at their end station, rather than have to take them out of service**”

Investment is continuing. New trams and a new train signaling system are on the way – and data points are being built into these systems right from the start. But what of the longer term future? Thindberg thinks that usable artificial intelligence is coming sooner than many people think. Organizations that collect enough data and analyze it correctly will be able to use algorithms that produce insights and decisions that are more robust and effective than those made by humans. Meanwhile, the move to driverless cars offers the prospect of innovative business partnerships between public transport providers and companies that operate a fleet of such vehicles.

However, the immediate task ahead is pressing. Sporveien operates a transport network that carries 200 million travelers every year on its 855 metro, tram and bus vehicles. It commands 220,000m² of real estate. There is huge scope for collecting and analyzing data, then turning it into insights that improve how Sporveien is run. Thindberg calls the metro cars “computers on wheels.” Realizing the full power of these computers is key to success. The number of residents in Norway’s capital city is set to rise from 624,000 in 2013 to 832,000 in the 2040s. So in order to meet the rising demand for journeys, Sporveien must keep on getting smarter, collecting the right data and forming insights from it that help improve journey times, make vehicles more reliable and better integrate the transport network.

Over the coming years, further technological advances will mean that there is always room for improvement. So, unlike the daily commuters, Sporveien has no final destination. But if it keeps on refining its data collection and getting better information from it, then those commuters can be confident of getting to work on time.

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A protester in Mumbai expresses solidarity with victims of terrorism in Paris. Both cities have suffered attacks in recent years and the effects have spread far beyond each city's borders.
We have much to celebrate today as we witness amazing scientific and technological advances around the globe. More people are living longer; healthier, more productive lives than ever before. We are better connected than any previous generation, more capable of exploring our world and exploiting opportunity.

But today’s world seems to be increasingly prone to shocks and failures. Extreme weather, terrorism, war, organized crime and cyberattacks are just some of the potentially catastrophic threats faced by governments, communities and businesses alike. These threats endanger the physical and economic ecosystems upon which we rely. Organizations must understand and manage these threats in order to allow society and the global economy to thrive. This means building resilience: the capacity to respond to and absorb shocks and stresses, and recover as quickly as possible.

Governments and industry are working together to provide safe and secure environments, build smarter cities, address climate change, create sustainable communities and empower innovation that will transform the way we live. With so much effort being expended to build a better working world, it is only prudent to protect the gains we make.

A future worth protecting

The planet’s population is set to grow by another 1.2 billion people by 2030, and the majority of these new citizens will live in urban areas. Cities will accrue even greater economic power in the future. By 2030, the world’s 750 biggest cities will contribute 61% of global GDP. Collectively, they will have gained an additional 220 million middle-class consumers who will be responsible for 60% of total global spending. Cities present opportunities for major investments in infrastructure. Up to US$8 trillion will be invested in critical infrastructure over the next 15 years. Such projects are set to account for up to half of the expected G-20 growth in the second half of this decade.

Urban populations are becoming more digitally connected, with consumer spending on goods and services via mobile technology set to increase from US$204 billion in 2014 to US$626 billion in 2018. Digital transformation is not only improving our lifestyles, it is fueling the innovation and entrepreneurship that drives the development of new business models and fresh revenue channels.

However, these opportunities are potentially for naught if we don’t recognize the need to protect the people, assets and value at the heart of our cities, communities, organizations and companies. We are surrounded by evidence that our world is creaking and we need to shore up its foundations if we are going to make it better.

A challenging environment

Urban populations consume 70% of the world’s energy and are responsible for 80% of greenhouse gas emissions. Ninety percent of the planet’s energy production is dependent on water, while the UN estimates that by 2030 water shortages could affect half of the world’s population. Nearly 1 billion people currently live in slums and this number is likely to double over the next 15 years. Desperate circumstances make people desperate. These burgeoning cities provide concealment, funds and targets for criminals and terrorists alike. Digital crime alone currently costs between US$375 billion and US$575 billion per year, a figure that dwarfs the GDP of many nations. And we are all far too familiar with the devastating effects of criminal violence and terrorism.

Risk abounds in the face of these threats. Lloyd’s City Risk Index, produced by the Centre for Risk Studies at the UK’s University of Cambridge, indicates that US$4.6 trillion of projected GDP is at risk from disasters in cities around the world. This is based on analysis of economic output in 301 major cities from 18 man-made and natural threats over the next decade. Among the threats are the physical impacts of natural and man-made disasters, including the effects of climate change and terrorism; cyberattacks; societal friction, including violent extremism; insider threats; and subversion.

At times, it seems like every news cycle includes coverage of yet another dreadful and spectacular disaster. The UN’s Food and Agriculture Organization estimates
that, between 2003 and 2013, natural disasters alone affected more than 2 billion people and resulted in 1.16 million deaths. These numbers will surely rise as the environment and our physical infrastructure comes under increasing stress.

When natural and man-made disasters coincide, the picture is often even bleaker. Many such occurrences are considered to be “black swan” events – they are infrequent, have a major impact, and are at first thought surprising but, in hindsight, seem like they could have been anticipated. At first glance, the 2011 Fukushima Daiichi nuclear disaster would appear to be a black swan event, but occurrences such as this are often misdiagnosed.

It is the causal links between the disruptive event and the cascading consequences that often prove to be overwhelming to planners and emergency responders. However, better understanding of the subsequent impacts of the initial disruption can help organizations to make contingency plans, manage risks and mitigate against the amplification of effects that cause such devastation. Data analytics and advanced modeling techniques now provide the key to gaining such understanding. While black swan events will not be predicted or prevented, organizations can take steps to limit the impact when they do occur. Such analysis may well have helped mitigate or reduce the devastation at Fukushima.

It is also essential to understand the ways in which the impact of such catastrophes stretches beyond the area that is immediately affected. Local and regional incidents such as flooding, storm surges, ice storms and chemical spills can disrupt the operations and supply chains of businesses and organizations well outside the crisis area. It is important to recognize and map the symbiotic relationship and dependencies between the businesses and communities both within and beyond the incident zone. Real life support requirements often span the boundaries between those who appear to be affected and those who don’t.

The impact of terrorist attacks and mass violence also spreads beyond localized events. The global impact of the September 11, 2001 attacks on the US illustrates not only the dreadful human costs of terrorism, but also its capacity to impede trade and commerce by crippling transportation networks. In 2008, Mumbai was brought to a standstill for four days by a series of coordinated terrorist attacks that left over 160 people dead. The terrorists caused significant economic damage in addition to the tragic loss of life. The Asia Economic Institute calculated that the attacks cost the Indian economy about US$100 billion and a further US$20 billion in lost foreign investment.

In 2014, a localized shooting attack in Ottawa’s Parliament disrupted municipal services across the nation’s capital and temporarily dislocated the Canadian Federal Government. The horrible cost of the 2015 attacks in Paris spread well beyond that city and even the French border. Brussels was locked down for several days as the threat of further violence crippled a city that is not only the Belgian capital, but also home to the European Parliament and NATO’s headquarters.

Violent criminals, business insiders who threaten organizations and violent extremists are generally normal people who have been driven by certain influences to do heinous things. The process of alienation, dissatisfaction and accumulation of compound grievances is not limited to any single ethnicity, culture, social group or religion. Those who are driven to such aberrant behavior are subject to a number of environmental and societal pressures and influences that convince them to strike out. The range of offenses they commit includes subversion, sabotage, workplace violence, gang-related crime and extremist terrorist attacks. Their actions endanger human life, cripple operational systems and destroy market value.

A 2015 report of the US National Infrastructure Advisory Council (NIAC) highlighted the risk to the transportation network arising from a combination of extreme weather, decaying infrastructure and cyberattacks. Infrastructure systems are becoming more tightly entwined and, as integration continues in both the physical and cyber domains, they become not only more productive and efficient, but also more susceptible to attack or catastrophic failure. The report highlights the risk of a cascading effect from dependencies on other transport modes and infrastructure sectors arising from cyberattacks.

The cross-over between cyberattacks and physical disruption was evidenced by the attack on the Baku-Tbilisi-Ceyhan oil pipeline in 2008, when hackers are believed to have shut down all sensor and safety systems before taking over the operational systems and causing an explosion. In December 2015, hackers were able to infect the information systems of the Ukrainian national grid and cause a power outage in the Ivano-Frankivsk region.

**Building resilience**

For over a decade, the UN Office for Disaster Reduction has been running a campaign to make cities more resilient. The campaign highlights the need for collaboration between national governments, municipalities, community organizations, the private sector, academia, professional organizations and citizens themselves. The World Bank is urging policymakers the world over to make cities...
more resilient by adopting an integrated view to reducing vulnerabilities and to develop comprehensive disaster management systems.

The Rockefeller Foundation is pioneering the 100 Resilient Cities initiative, which is dedicated to promoting urban resilience by helping cities to address the potential causes of disruptive systemic shocks and also the stresses that weaken the fabric of a city. They provide resources to help cities cope with the conflagration of effects that result from cataclysmic events and other contributing factors such as crime, violence, social deprivation and infrastructure disruptions and inefficiency.

The International Council for Local Environmental Initiatives hosts an annual global congress on urban resilience to bring industry and municipalities together to address challenges such as urban risk and smart infrastructure. Firms such as Siemens have also picked up the gauntlet and are developing systems and tools that leverage technology to improve the reliability and resilience of infrastructure, emergency response, energy and information systems. Organizations such as NIAC are finding ways to bring government and industry together to make critical infrastructure more robust.

EY recognizes the need to help our clients address these threats. It has developed EY Protects, a full-spectrum approach to resilience. EY offers services that help organizations prepare for, react to, respond to and recover from incidents more effectively. This suite of capabilities helps make organizations and communities stronger and more flexible so that they are better equipped to deal with physical or cyberthreats. It also helps them to recognize circumstances and triggers that can fuel violent extremism and insider threats, and to take actions to reduce the likelihood of violent discontent in communities and in industry. EY’s strategic communications and crisis management services help clients maintain communications with key stakeholders throughout the most difficult circumstances.

Previous systems for identifying, quantifying and ameliorating risks are becoming obsolete. It is no longer enough to consider discrete threat vectors or manage isolated risks without reference to the wider system at play. At EY we have embraced data analytics to drive a more comprehensive understanding of risk. The resultant picture helps develop complete risk maps with overlays that fuse all available information to identify the nodes where secondary and tertiary effects of incidents could lead to critical failure. Risk maps help codify the linkages between events inside a threat zone and beyond. The services that EY provides in the physical and cybersecurity domain are linked with disaster and emergency management services and can be tailored to match the threat environment.

It is not possible to remove all risk or build defenses against every eventuality. Instead, governments, communities and industry alike must be ready to face threats and bounce back quickly from them. By doing so, they will help to provide a foundation from which businesses, economies and societies can thrive.
With gender parity in the workplace seemingly more than a century away, **Uschi Schreiber** asks: can new media and technology advance diversity in public leadership?

In its Global Gender Gap Report 2015, the World Economic Forum estimated that it will take 117 years to achieve global gender parity in the workplace. A myriad of studies show that more gender equality in the workplace brings improved productivity, better financial performance and higher GDP. So that's 117 years until governments, businesses and other organizations get the full benefit of equal leadership by men and women.

It’s been more than 200 years since the Industrial Revolution sent large numbers of Western women into the workforce. It’s been more than 150 years since women gained access to higher education in Western countries. It’s been almost a century since women gained the right to vote in parts of Asia and South America. But there are still parts of the world where women cannot vote, attend college, take a job or create a business.

Progress toward equality is too slow. Which is why EY has established its “Women. Fast forward” initiative. The initiative brings together men and women leaders from across the world to discuss ways to accelerate progress and turn words into meaningful action.

Dalia Grybauskaitė, Lithuania’s first female President, sees social media as a two-way communication channel.
The topic of technological disruption — the fourth Industrial Revolution — and the impact that it is having on economies and societies set the agenda as global leaders gathered earlier this year for the World Economic Forum annual meeting in Davos. For me, power and inclusion are core to discussions about technology and gender.

One of the most interesting panel debates I took part in at Davos was on the potential of new technology to advance women’s leadership and political participation. The discussion — hosted by EY and the Women in Parliaments Global Forum — addressed the impact of new technologies on traditional power structures and the potential for digital innovation and social media to drive greater diversity in political leadership and public life.

We were fortunate to be joined in the session by Dalia Grybauskaitė, Lithuania’s first female president. President Grybauskaitė was first elected in 2009 with 69% of the vote, the highest on record in independent Lithuania. And in 2014, uniquely among the country’s democratic leaders, she won re-election.

Her support was grounded in the fact that she had a proven track record as a minister and a European Commissioner. But she was also the only candidate who used social media effectively. She attributes some of her popularity, both within Lithuania and the wider Baltic region (she was named Ukrainian person of the year in 2014), to the ability to maintain a strong connection with people through social media interaction.

She has fashioned herself into a thoroughly socially-savvy, modern leader. She chooses her channels for her audience, using Twitter to communicate with her 94,000 followers on the international stage. Indeed, as the media in Europe fretted about a potential deal among leaders following the negotiations over the UK’s future EU membership, Grybauskaitė cut through the noise with a direct message to her followers: “Agreement #UKinEU done. Drama over.”

She shares her news, schedule and ideas with a domestic following of over 300,000 people on Facebook and she appreciates how social media enables her to hear directly from voters “unfiltered by the bureaucratic machine.” In her view, people don’t want politicians to be formal on social media. So she consciously tries to maintain a natural presence.

“Social networking favors outsiders and newcomers to politics, so it can be an asset for women candidates and activists”
“Modern communication technologies and social media enable every person to become a part of world events and thus open up new opportunities to engage in politics and social life,” she told the gathering at Davos. “It encourages open and direct dialogue between leaders and society, and creates a chance for women, who are not equally represented in the highest levels of business and politics, to be more courageous and free.”

So, technology is having powerful and positive disruptive effects on political decision-making and traditional power structures. Social media has opened opportunities for new forms of political engagement and has expanded opportunities for increasing political representation and participation.

We were joined in the discussion by David Gergen, an experienced US political commentator, now co-director of the Harvard Kennedy School Center for Public Leadership. He is a former advisor to four US presidents and has seen enormous change over his decades of public service.

Social networking, Gergen argued, favors outsiders and newcomers to politics, so it can be an asset for women candidates and activists. However, he warned, women’s opinions are often subject to misogynist abuse and that can understandably deter them from engaging.

New media does afford aspiring leaders greater control over their image-making. Gergen pointed to the mastery of US politician Sarah Palin in using new media to present her personal brand in an impactful way. But he was skeptical about the ability of social media to influence people into making anything other than light commitments. He argued that social media may be effective in influencing how people vote, but it is less clear that it has any effect persuading people to vote in the first place.

The Women in Parliaments Global Forum (WIP) is an independent, international and post-partisan foundation established with the purpose of advancing society by building a network between Women in Parliaments. EY is a proud supporter of WIP and Uschi Schreiber serves on its advisory board.

womeninparliaments.org

Visit ey.com/womenfastforward to learn more about EY’s global program to accelerate the advancement of women.
According to Gergen, technology might have made it easier for people to get elected, but it makes it harder for them to govern. I agree. The interaction between citizens, government and politics used to happen in a very linear way. Citizen engagement now needs to be far more networked, agile and constant.

Disruptive technologies have also proved extremely powerful for disruptive political movements, such as the Arab spring. Amira Yahyaoui, Tunisian human rights activist and co-chair of this year’s World Economic Forum annual meeting, talked about how technological advancements had enabled the civil society movement in Tunisia to hold the Government to account.

Amira has been publicizing the work and voting records of the constitutional convention since 2011 through an internet platform called marsad.tn. The benefits to democracy and a more open society provided by new technology have, she said, to be weighed against the opportunities it provides for the promotion of radicalization and terrorism.

Matthew Bishop, US business editor and New York bureau chief for The Economist, introduced another potentially adverse consequence of technology. Social media can empower us but also drive us apart, he warned.

Bishop pointed out that digital technology allows us all to choose our information sources in a highly personalized way. We are at risk of being enveloped in our own personal social media bubble, isolating ourselves from diversity of thought.

The challenges that new technology poses to government, business and society require new ways of thinking and acting. The answers won’t be found in the past, and risk-taking will be required. Technology should enable, not diminish. There are certainly contradictions inherent in this age of digital disruption, and we will all need to navigate the pitfalls. More than ever, we require leadership across the public and private sectors to see what’s coming, think big about what to do and, most importantly, be ready and able to act.

More important than ever will be cognitive, ethnic, age and gender diversity to bring the best and most innovative thinking and problem-solving skills to a fast-changing world.

Uschi Schreiber is EY Global Vice Chair – Markets, and Chair of the Global Accounts Committee. Twitter: @UschiSchreiber
On Saturday 6 August, 2016, two teams will enter the Future Arena in Rio de Janeiro to get the Olympic handball competition under way. The previous day’s opening ceremony will be fresh in the minds of the venue’s 12,000 spectators. Olympic excitement will be at fever pitch and the crowd will raise the roof as the action starts.

Fast forward a few years, and the venue’s roof will look down on a very different scene. Children will be studying from books and devices, learning about science, mathematics, art and literature. This safe, comfortable learning environment will be part of the legacy of the Rio 2016 Olympic and Paralympic Games. It will be the result of strong ambition, clever architecture and, above all, careful legacy planning.

When a city bids to host the Olympic Games, it sells an aspirational image. World-class sport, in great venues, that inspires its people to lead active lives, and those watching around the world on television to visit a must-see tourist destination. Once the right to host the Games is secured, organizers pour their energy into ensuring that venues are built on time, and that
spectators, competitors, media and administrators can be accommodated comfortably and transported quickly around the city. The eyes of the world are trained on the host. Failure to be ready would have catastrophic consequences for the reputation of the city, its politicians and national leaders.

But what happens when the athletes go home? How will the venues be used and who will pay for their upkeep? It is not surprising that, in the rush to be ready on time, these questions are often ignored. However, failure to come up with answers can have serious consequences that are felt long after the Games has ended.

**Taming the beast**

A “white elephant” is a possession that you don’t want; something that is hard to dispose of and expensive to maintain. The phrase is said to derive from the kings of Siam, who gifted these beasts to courtiers they disliked, so that the courtiers would be ruined by the great expense of maintaining the animal. Some host cities of Olympic Games and other major sporting events know how the courtiers must have felt.

For example, Atlanta, Athens and Beijing have encountered challenges when searching for a sustainable...
use for some of their Olympic venues. Some facilities are rarely used, requiring subsidies from taxpayers to service the running costs. Others lay abandoned.

Brazil is braced for tough economic times ahead. It is crucial to demonstrate that the money spent on the Olympic and Paralympic Games will bring tangible benefits in the long term.

Legacy has run through the deliberations of the organizing entities from an early stage in the Games’ planning process. Legacy planning has five guiding principles: urban development, economic development, social development, sport development and image development. The Games is improving the city’s transport network, boosting its economy, creating community and educational opportunities for its people, providing sports facilities for elite and leisure participants, and driving tourism.

For a host city, the context for regeneration is transformed by the Games. Extra media and political focus, and increased attention from investors, offers the opportunity for the host to improve its image and strengthen its competitive position in local and global markets. The challenge is to use this opportunity to drive a positive agenda of economic and social progress. Developing infrastructure – that is both directly and indirectly connected to the Games – is one way of helping to realize this opportunity.

**Homage to Catalonia**

Barcelona, host of the 1992 Games, is a great example of how Olympic-related development can boost, or even transform, a city. Barcelona had been starved of investment during Spain’s Franco era. In 1990, 15 years after the transition to democracy, it attracted just 1.7 million tourists. As the city prepared for the Games, it underwent a program of widespread infrastructure improvement. The most eye-catching was the development of the city’s seafront. It was transformed from a knot of rail tracks and industrial buildings into the Olympic Village, a beach and an attractive waterfront area.

After the world tuned into the Barcelona Games, the waterfront became the symbol of a modern, forward-looking, tourist-friendly city. Development has continued in the years since and the city now attracts 7.5 million visitors each year. Of course, the Catalan capital’s historic architecture and world-beating football team, FC Barcelona, do much to promote the city. But the Olympic legacy is a huge part of its recent success.

In Rio, City Hall is also using the Games as a catalyst for development. Among the indirect infrastructure projects under way are 30km of light rail to connect neighborhoods in need of regeneration to Rio’s financial district, local airport, bus, metro and rail stations; redevelopment of the port and surrounding areas; a new rapid bus transit system; 16km of new metro lines connecting the south and west; and improved links to landmarks and historical sites, which help to create a mix of business and culture that benefits companies and tourism.

The importance of indirect infrastructure projects is reflected in the make-up of the Rio Games budget. Such projects attract 64% of the budget, compared with 19% for operations and 17% for direct Olympic infrastructure, such as sporting venues. These projects are crucial for Rio’s positioning after the Games. They will do much to determine how business visitors and tourists perceive the...
city. They must see that the Games has helped to improve the city for the people who live in it and those who visit.

The need for development of this kind in Rio has long been recognized, but not acted upon. The Olympics is a catalyst to finally get building. Hosting the Games brings a higher profile and bigger opportunities, allied to more investment and stronger political will that derives from the global media attention. And it is being paid for by a mix of public and private money. For the Rio Games, around 55% of the budget comes from private investment. This is an increase on the equivalent figure for the London Olympics in 2012.

The redevelopment of the port area is a good example of how private investment is being secured. At US$2 billion, it involves the biggest public-private partnership (PPP) in Brazilian history. A private contractor is redeveloping the port, financed through a bond scheme. So the city authorities are not paying for the work. Instead, the city has awarded the contractor the right to redevelop a run-down area around the port – building residential and commercial properties from which it can make a profit.

So the private contractor gets an exciting development opportunity, while the city benefits from a regenerated port area without spending large amounts of taxpayers’ money. The port is located in the city center, where the origins of the city lie. The work on the port has shed light on Rio’s history and helped the city to regain some valuable historical and cultural spaces. In the seven years of Olympic preparations, the city has seen as much transformation as in the preceding three decades. Down the years, promises of infrastructure development – such as metro line 4 – have not been kept. Until now. So the Games is the catalyst for change that unlocks infrastructure projects, and creates value that is cultural, as well as economic.

From playing to learning

So, what of the direct infrastructure projects – the venues in which the sporting action will take place – and their long-term future? And how does a handball arena become a classroom?

When the Games starts, sports will take place in 32 venues across the city and in football stadiums in another five cities across Brazil. Planning for the Rio venues’ post-Games purpose has been vital to the task of avoiding white elephants. The bid document, submitted in 2009, set out some vague ideas. Since then, as they have developed firm plans, organizers’ thoughts have been guided by the legacy principles.

Some facilities will be dismantled after the Games. But others will be turned into training centers for elite athletes, with leisure and sporting facilities also for community use. This will aid sport development. But with so many venues, not all can be used for sport. So, with the social development principle in mind, organizers decided to turn some facilities into municipal schools. The final piece of the jigsaw was to create opportunities for the private sector to run retail and leisure spaces.

This mixed use was agreed. But how would the venues be adapted for use after the Games, who would be
responsible for their upkeep and how would ownership arrangements be governed? Seeking guidance on these questions, the Games organizers turned to EY.

Rio’s bid files set out a preliminary view to turn some Olympic venues into training facilities for elite athletes. Further work was required to produce detailed financing and governance plans. EY studied other elite training centers and spoke to elite athletes and sports administrators before delivering a report that detailed what was required to create a world-class training center, how this could be achieved and how much it would cost. The report set out the facilities, organizational structure, governance, planning, catering and nutritional needs, running costs and ongoing workforce requirements.

The Rio 2016 Organizing Committee passed on this report to City Hall. The mayor of Rio commissioned a second report, this time on the post-Games use of the Olympic Park. The Olympic Park houses nine venues, which will play host to sports including basketball, tennis, gymnastics and handball. Again, the bid documents set out a preliminary view of the long-term purpose of the park. So, working closely alongside City Hall, the Rio 2016 Organizing Committee and the National Olympic Committee, EY produced a detailed legacy plan, setting out a sustainable post-Games use for facilities, covering governance and finance, as well as institutional, procurement and logistics issues.

Sustainable funding is crucial to the future of the Olympic Park. The vehicle for achieving this is PPPs. Much like the agreement for the port, the PPP for the construction of the Park included the transfer of land in the surrounding areas to private contractors in exchange for building the Park itself. The plan for the future is based on a separate PPP arrangement that applies to the Olympic Park legacy. Under the terms, the public and private sectors will work together to transform a solely sporting environment into facilities that have sustainable educational, social and sporting purposes – and offer commercial opportunities for the private partners. This model of mixed purpose is unique. Once it is finalized, it will be the first Olympic Park in history to provide a legacy that goes beyond sport and leisure.

The Future Arena is one of the venues in the Olympic Park. Although it will host handball during the Games, it was constructed with the post-2016 use very much in mind. After the Games, it will be dismantled and its parts used to construct four municipal schools, each with capacity for 500 students. The roof structure is made up of metal beams and tiles of a standard size for reuse on the roofs of the schools. This is one of the “nomadic architecture” techniques that will transform the Arena from one of sporting achievement to educational excellence.

EY’s legacy study focused on other venues, such as the velodrome and Carioca Arena 3, which will stage fencing, taekwondo and Paralympic judo during the Games. These venues will be among those adapted to form the Olympic Training Center. Indeed, of the nine facilities that comprise the Olympic Park, seven will be maintained after the Games.

The velodrome will become a training center for Brazil’s elite cyclists. It will also be adapted to provide facilities for taekwondo, fencing, boxing and weightlifting. Each month, it will host classes for people from the local community who want to take up these sports.

After the stands have been dismantled and classrooms and training rooms constructed, Carioca Arena 3 will become an Experimental Olympic Gymnasium school, with capacity for up to 1,000 full-time students covering a variety of sports. It will also serve the community, offering 9,500 places per month for people to participate in sports such as badminton, wrestling, table tennis and archery.

Beyond the finishing line

These transformation projects demonstrate the innovative thinking about long-term uses beyond sport, the benefit of well-prepared PPP arrangements and the value of thinking ahead. A lesson for other hosts of major events is that detailed planning for the post-Games use of facilities will save local taxpayers money in the long run.

Good planning does not mean just deciding on a sustainable purpose for a building that has been constructed for the Games. It requires preparing for the ultimate function of a venue before it is built. If sewage, water and other facilities are set up in the construction phase with the ultimate long-term use in mind, then transformation of the facilities after the Games will be quicker, easier and cheaper.

“"The aim for Rio is to create an Olympic legacy that helps it change its image around the world."”
So, the legacy of Rio’s Olympics is set to be broad, transformative and sustainable: urban development through the regeneration of run-down areas and improvements to the transport network; economic development through the attraction of investment; social development through the provision of new schools and community facilities; sporting development through the creation of elite training centers; and image development through the showcasing of a vibrant city to a worldwide audience. The mix of private and public sector obligations and opportunities provides a blueprint for effective PPP and governance arrangements, which can be replicated elsewhere in Brazil, in other Olympic cities and beyond.

The aim for Rio is to create an Olympic legacy that helps it change its image around the world – much like Barcelona has done – so it can compete with the likes of London, Paris and New York as a global destination for tourism and investment. But each host city needs to do its own thinking. It must understand what it needs and what it’s known for when thinking about a legacy. Rio is a city of tourism, commerce and entertainment. The key to a strong legacy is making sure that it reflects the character of the city.

It has never been more important for cities and countries to demonstrate the value of hosting major events. In mature markets, the way public money is spent and the value it creates is under increasing scrutiny as governments look to stabilize their fiscal positions. In many emerging markets, similar forces are at play as declining commodity prices begin to affect government expenditure plans. The groundbreaking social and educational component of Rio’s Olympic legacy is important because it demonstrates to local people that the benefits go beyond finance and economics. Other potential hosts of major events may see this kind of value as a way of overcoming public skepticism.

The story of the Olympic Games never ends with the closing ceremony. For Rio, new chapters will be written long after 2016, not least by the children whose minds and bodies will be exercised in the classrooms and training centers fashioned from the Olympic arenas. 

EY Brazil is the exclusive provider of professional services in the consulting category for the Rio 2016 Olympic and Paralympic Games. EY Brazil is working with Games organizers on a variety of projects, advising on issues such as venue management, logistics, sustainability, procurement, supply chain management, finance, budgeting, risk, workforce training, planning, measurement, health and safety, security and technology.

Luiz C Campos is Partner, Project and Corporate Finance; Marcelo Lutterbach is Manager, Major Events, Ernst & Young Assessoria Empresarial Ltda.
It was before lunch one day in September 2003 when 20-year-old Hendy Sentiono pulled his cart along Nginden Semolo Street in Surabaya, Indonesia’s second-largest city. He found a suitable spot, stopped and waited for a hungry passerby to notice him. Before long, his first customer succumbed to the tempting smell of kebab meat that was drifting from the cart.

This customer proved to be the first of many. Within a decade, 1,200 outlets of Kebab Turki Baba Rafi, the brand Hendy established, had opened. Today, it is one of the world’s largest food chains of its type, serving kebabs, sandwiches and burgers in Malaysia, the Philippines, Singapore, Brunei Darussalam, Sri Lanka, China and the Netherlands, as well as Indonesia.

**Quest for quality**

The global economy must create 280 million jobs over the next four years if it is to provide enough opportunities for all new entrants to the labor market. This is a huge challenge and few national governments doubt the positive impact of entrepreneurs in solving it. Across the G-20 and rapid-growth economies, they represent more than 75% of employment.

However, to make a lasting impact, the goal must be to develop quality entrepreneurship and quality employment by targeting the high-impact entrepreneurs who stand out from their peers. These businesses grow faster, create more jobs
In the previous edition of Citizen Today, we explored the measures that G-20 governments are taking to foster entrepreneurship. Here, Alistair Bance reports on an EY program that helps entrepreneurs in emerging markets to unlock their full potential.

and transform their industries to a greater extent, making an outsized contribution to the economy and society.

Hendy is a great example of a high-impact entrepreneur. The growth of his business is not the result of short-term interventions or government hand-outs. It is based upon years of hard work and determination, the support of friends and family, and the long-term support of mentors.

Hendy was a participant in the EY Vantage Program. He says: “In the history of Baba Rafi, there will be a before and after the EY Vantage Program.” So what is the EY Vantage Program, how does it help entrepreneurs and what can policymakers learn from the way Hendy has created quality employment opportunities?

Vantage point

Imagine an intern has been placed with your organization for the week. What will you do with them? You do not know their skills, you have little time to manage them, and they are unlikely to add long-term value. Now imagine you are an entrepreneur. You learn that, through a scheme to support entrepreneurs, leading businesses are willing to provide you with their people so they can live out their commitment to developing an entrepreneurial culture.

The benefit for the secondee and their business is clear. But what about the entrepreneur? They might hesitate to open their doors to an employee from another business who they don’t know. But on the other hand, they might feel reluctant to turn down the support, given the potential for future engagement with the business.

This arrangement could easily become a burden, distracting the entrepreneur from the central task of growing their business.

The EY Vantage Program takes a different approach. It places the needs of the entrepreneur at the heart of its work. The program works with two entrepreneur networks, Endeavor and Power of Youth, to identify the right entrepreneurs to take part in the program. These entrepreneurs operate in emerging or re-emerging markets, and they must demonstrate the potential to become high-impact entrepreneurs.

The program works like this: For six weeks, a top-performing mid-career EY person will travel to the workplace of the entrepreneur, and help them to address their biggest obstacles to growth. This could include helping the entrepreneur to access funding or explore drivers of growth using the EY Growth Navigator, for example. The placement helps to give the entrepreneur the tools and knowledge to overcome these challenges. And crucially, it provides them with a network of people who they can turn to in the future. So the entrepreneurs gain practical, targeted advice, free of charge. In turn, an EY Vantage Advisor gains a valuable opportunity to work in an emerging market, and develop a global mindset that will help them develop their leadership skills.

EY treats these placements as an extension of normal service. The entrepreneurs, and their needs, are carefully matched to the skills of the EY Vantage Advisor. The advisors undergo a thorough pre-placement preparation process, which includes a two-day training event focused on the challenges faced by entrepreneurs. EY, the advisor and the entrepreneur then set out the scope of the placement, and the advisor assembles a network of EY professionals, located in the same country as the entrepreneur, who will be on hand to provide support during and after the placement.

Gateway to growth

For entrepreneurs who take part in the program, the benefits are clear. EY recently surveyed 161 entrepreneurs who have participated. More than 90% continue to operate. Between them, they contributed more than 15,000 jobs and US$1 billion to the global economy in the last financial year.
A recent placement demonstrates how Vantage can have a significant social impact. Sandra Ool works for EY’s UK member firm. She undertook a Vantage placement with SYNAQ, a company that provides electronic communication services in Africa. Her task was to help SYNAQ implement a performance management framework and develop an operational strategy execution plan. This work led to the company increasing the salary of its lowest-paid employees by 13.5% and introducing a benefits package to all workers, including pension and medical aid provision.

Yossi Hasson, the founder and CEO of SYNAQ, says: “The EY Vantage program provided exponential value to SYNAQ. Sandra guided us through all these changes and provided invaluable expertise and recommendations. She showed just what the right expertise, mixed with a passion to help a business grow, can achieve.”

Matias Rozenfarb is CEO of Keepcon, a software company based in Buenos Aires. He says: “Given the work we did with EY, now we can enter into a strategic discussion with a mature and comprehensive understanding of the market, ourselves and many other important variables.”

See Wai Hun also benefited from the program. She is CEO of Juris Technology, an IT solution company based in Malaysia. She says: “Our secondee introduced us to concepts that I believe will be a game changer in the way we grow the company. Business is growing but, if we do not find a way to grow our employees effectively, we would have problems with attracting talent and retaining them. With this new method, we believe that we now have a sustainable scheme for employee growth and retention.”

For EY, these results help to demonstrate our purpose of “building a better working world.” As Hendy explains: “The EY Vantage Program provided me and the people within the organization a better insight about the importance of building a better working world. We now understand the importance of creating opportunity, providing a good working and development environment, as well as respecting and promoting diversity and equality.”

**Policy pointers**

So, what can governments around the world learn from these success stories as they seek to build on their own policies to encourage entrepreneurship? From our experience with the EY Vantage Program, we can see that entrepreneur networks such as Endeavor and Power of Youth are leading the way for entrepreneurs. They are supporting the creation of quality entrepreneurship and quality employment.

Governments could incentivize and fund entrepreneur networks that are delivering a measurable impact. These networks can act as the intermediary of any government intervention. Entrepreneur networks have a very deep understanding and knowledge of the entrepreneurial ecosystems in which these businesses operate and,
as such, can deliver effective and impactful funding. They could act as a due diligence mechanism to help governments draw up and apply policy.

Government-backed funding should be tied with mentoring and support. Providing access to funding for developing businesses does not guarantee results. Ongoing mentoring and support is required if the funding is to realize the largest possible benefit.

Governments should work with businesses to put in place long-term solutions that create shared value. Together, they can promote an environment that removes the stigma of failure, showcases entrepreneurial talent and emphasizes the social benefits of entrepreneurship, from job creation through to innovation and broader economic growth. Businesses that have long-term programs should be recognized and their insights should be publicized.

**Legacy builders**

Quality mentoring provides entrepreneurs with confidence, perspective and the ability to seek solutions in geographies outside their own. In a global economic environment that offers ever more opportunity – but is becoming increasingly competitive – these skills are invaluable for people who have the vision and drive to grow their businesses and become high-impact entrepreneurs like Hendy Sentiono.

From the humble beginnings of a food cart on a street corner, Hendy’s company Kebab Turki Baba Rafi now employs more than 1,900 people. The EY Vantage Program has played a significant role in this growth story. It helped him form a clear view of the market and recognize a path to take that would lead to growth and expansion around the world. “The Vantage Program helped me structure a great business plan for future growth,” says Hendy. But it also connected him with the local EY office in Indonesia, so he could discuss follow-up projects and get the ongoing advice that companies like his require if they are to expand across borders.

Hendy has now established the Baba Rafi Academy, which helps local entrepreneurs. Hendy has built a successful international business, created jobs and career opportunities for thousands of people, and now supports and inspires the next generation of entrepreneurs in Indonesia. And all this before his 33rd birthday.

By any definition, this is high-impact entrepreneurship, with a strong purpose and a lasting legacy. Hendy’s journey also demonstrates the benefit of well-managed mentorship and support. If governments, the nonprofit sector, companies and entrepreneurs can work together effectively, more of these businesses will emerge from the streets to provide jobs and opportunities for people in villages, towns and cities across the developing world. And that’s food for thought. ❓

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Alistair Bance was a participant in the EY Vantage Program. He is now the program’s global leader.
As more people are attracted to the city’s bright lights, municipal governments around the world find themselves grappling with the challenge of providing sufficient jobs, houses and transport networks. Is the transfer of power from central government to city administrations the answer? Mark Gregory reports

About 11,000 years ago, after the end of the last Ice Age, people in the Middle East began to cultivate crops, domesticate animals, build structures and organize themselves into communities. Since then, increasing numbers of people around the world have been drawn to settlements in search of shelter, sustenance, company and opportunity.

Today, cities are still growing in importance as global centers of economic activity, employment and consumer spending. According to the United Nations, by the middle of 2009, the number of people living in urban areas had surpassed the number living in rural areas. By the time this century reaches its half-way point, two-thirds of the world’s 9 billion people will be city dwellers.

Cities’ performance is crucial to the prosperity of national economies. This importance will only grow as cities become larger. Therefore, attention is focusing on how they can manage expansion and maximize the economic potential of having more people living in close proximity. How can they overcome the challenges of congestion, pollution, poverty, social cohesion, health and housing, while attracting businesses, investment and talent?

Releasing potential

There is growing recognition that cities perform better when they have the policy levers, tools and resources at their disposal to drive higher performance. Transferring decision-making and fiscal powers from central to local governments can help cities stimulate growth and innovation, improve the well-being of residents and local workers, and strengthen local democracy. National governments have a crucial role to play in creating the foundations and conditions that enable local governments to deliver on these responsibilities, through appropriate policies, regulatory frameworks, funding and support mechanisms.

The UK is an excellent example of a country that is going through a significant decentralization process aimed specifically at economic development. With its highly centralized governance structures and an economy dominated by London and the South East region, the UK has not historically looked to localizing power as a means to drive economic growth. Meanwhile, many cities in the former mining and manufacturing heartlands of the Midlands and North have yet to adapt to today’s harsh post-industrial
economic realities. The failure to replace lost jobs holds back life chances and economic growth.

But things are changing. In recent years, UK governments have taken a number of important steps to empower UK city regions. In 2011, 39 Local Enterprise Partnerships (LEPs) were established, bringing together local authorities and businesses through voluntary partnerships. Their remit is to determine local economic priorities and lead economic growth and job creation in their area. The Government offered a range of incentives, such as tax concessions, to encourage business start-ups and investment in a number of enterprise zones created within LEPs’ boundaries. And it provided financial support for projects and programs with strong potential for economic growth through a Regional Growth Fund.

For the Government and local political leaders, economic growth and rebalancing the economy is the real prize. The creation of City Deals in 2012 – and subsequently Growth Deals – was the culmination of a decade-long discussion about the role of cities in the national economy. The deals are bespoke arrangements between central government and cities that provide the tools and funding to support local growth.

While the details of each deal varies, broadly they involve between four and nine different programs covering policy areas such as infrastructure investment, business support, transport, housing, education and skills. Crucially, they promote a move away from budget silos to a package of complementary projects that address specific local challenges. In return for more powers, the cities are required to deliver better outcomes, engage the private sector and create an effective governance structure.

The move toward decentralization gained momentum with the signing of these initial deals. More recently, the Government invited bids from city regions that wanted to agree a “devolution deal,” offering an additional transfer of powers and responsibilities in areas such as public service delivery. A series of deals have been agreed in Greater Manchester, Sheffield, Leeds and other metropolitan areas, and many other city regions are in the process of negotiating their own deals. Notably, the process is asymmetrical, with city regions taking on different powers and responsibilities when the time is right and there is an appetite.

A devolution dividend?

So, have these reforms begun to deliver real benefits? In some cities, programs are directed toward long-term capital investment in infrastructure, such as roads and buildings. The impact on growth will not be realized for years or even decades. In others, a focus on investment in skills and business support has brought an earlier impact.

For example, in Sheffield – where the post-industrial jobs crisis was vividly brought to life in the 1997 film *The Full Monty* – the city’s Skills Made Easy program had already created 1,600 apprenticeships and upskilled 1,300 people by January 2015.

In Birmingham, the city’s Institute for Translational Medicine, which brings life science research from the laboratory to the market, was match-funded by two government departments and the newly created Birmingham Health Partnership, and has also attracted investment from a global pharmaceutical company.

In the North East, Newcastle’s Accelerated Development Zone allows the city to keep 100% of the increase in business rates in four zones. This has enabled the council to borrow funds with which to start its investment program. Newcastle calculates that, by March 2015, investment in the zones had created more than 1,000 jobs.

In recent years, UK manufacturing companies have begun to consider...
reshoring their operations and bringing back jobs to the UK. This represents a major opportunity for the regional economies, in particular for those contending with higher unemployment and lower wages than the rest of the UK. The benefits of local decision-making are already changing the perception of investors. While London maintains the highest share of FDI projects in the UK (43% of the total), the majority of growth in 2014 happened in the regions – with Yorkshire (+140%), Wales (+75%), the South East (+48.9%) and the West Midlands (+38.3%) the major winners.

The path to progress

The UK is at an early stage of its devolution journey. But its experience helps us to identify a series of priorities for other cities and regions around the world that are seeking new ways to grow and compete, and for central governments that are seeking an impetus for balanced economic development.

First, aligning institutional and economic boundaries. As cities become more influential as centers of economic growth, they can draw resources from a wider geographic region. However, long-standing political and administrative boundaries do not necessarily align with those of the functional economic area. Negotiations surrounding devolution bids involve different local authorities. This both encourages and requires them to overcome any longstanding political or regional tensions. In general, the prospect of gaining more powers at the local level in the UK has been a catalyst for local councils to come together around a shared growth agenda and new governance structure.

Second, developing strong, credible local leaders. City regions perform better when national, regional and local interests are aligned. This relies on strong local leadership and a willingness to cooperate with partners such as central government, city administrations, the private sector, universities and civil society. Local leaders need to be adept at influencing and persuading other stakeholders, despite having no direct mandate to represent or lead them. They must encourage the different interests to coalesce around a common vision and align resources and efforts to achieve that vision.

Third, a robust economic model and long-term strategic plan. Successful city regions have created a robust evidence-base and a long-term plan that sets out their priorities for growth. By developing a model of their local economy and its interaction with regional and national economies, they are able to define the specializations and advantages that help them compete on a global scale. These models will also enable a more rapid response to changing market, technology and demographic trends, and provide greater resilience against economic shocks and increasing global competition.

Fourth, prioritizing investment and policy interventions. Assessment of the policy levers that are available to local authorities to stimulate regional growth is crucial to delivering strategic plans. Economic and financial modeling can help assess the cost and impact of different policy interventions – such as the effect of transport investment on commuting times, or of investment in skills programs on productivity and job creation. Local governments need to show they can deliver better value for money by assuming responsibility for different policy areas – and the more detail they provide, the stronger the case.

Fifth, strong and accountable local governance structures. Transparency, clarity and agreement on the division of responsibility for delivering policy commitments are key challenges for city regions. Effective governance structures are vital to ensure strong partnership working across localities and to hold different organizations to account. Failure to put these in place could mean elements of decentralized programs might not be implemented as envisaged or deliver what has been promised.

Sixth, innovations in local financing. To deliver their agendas, city governments need sufficient resources and financial autonomy to ensure that decisions made at the local level can be implemented. This means expanding their revenue base while reducing dependence on shrinking grants from central governments. New financial management tools will help them control costs, prioritize projects, manage performance and identify alternative sources of income. Many are looking to tap external sources of funding – such as capital markets or public-private partnerships – to finance infrastructure improvements.

Finally, capacity and capabilities to manage devolved powers. It may be difficult for city governments to devote sufficient resources to the task of managing their new powers and responsibilities effectively. This is particularly the case where central government funding is insufficient to support additional management capacity. An important response is to address skills gaps in areas such as data collection and analysis, policymaking and evaluation, economic modeling and forecasting, and financial and risk management. Combined authorities can look to pool resources and expertise across the wider region to enhance capacities and skills for the longer term.

Equipped for the future

In the UK, the North West region and Manchester are at the core of the Northern Powerhouse, the term...
How Manchester paved the way for decentralization across the UK

Manchester was the powerhouse of the first Industrial Revolution in the 18th century. Now, 250 years later, the city boasts strengths in the professional and digital sectors, university research and the media. And it is in the vanguard of the UK Government’s decentralization agenda.

The city benefits from the experienced and pragmatic leadership of the city council’s chief executive, Sir Howard Bernstein, and leader, Sir Richard Leese. The two men have been walking the corridors of central government with purpose for years to secure a better future for Manchester. They have built up relationships and credibility, winning the respect of ministers and senior civil servants for being effective negotiators who deliver on their commitments.

Over the past 30 years, Manchester has built a track record of cooperation across its 10 councils and the private sector. This has enabled more effective joint working on priorities such as transport, regeneration and economic development.

In 2011, the Greater Manchester Combined Authority (GMCA) was established – the first body of its type in the UK – to align the region’s political geography with its functional economic area. The GMCA provides an accountable governance structure for policy interventions within the region. Each leader of the 10 authorities is responsible for a policy portfolio, such as skills and employment, business support or transport. This structure, and partnerships with bodies such as Transport for Greater Manchester and the Local Enterprise Partnership, helped create a unified voice for the local economy and a joint vision for growth.

The city has built up a strong evidence base on the local economy. The Manchester Independent Economic Review (MIER), undertaken in 2009, helped to assess the state of the region’s economy. It found that Manchester was failing to maximize its potential for generating gross value add (GVA). The MIER informed the debate across all the key stakeholders. It formed the backbone of a new strategy that would build on Manchester’s existing strengths and assets.

Greater Manchester has also negotiated new funding arrangements, which paved the way for its landmark City Deal. The arrangement includes an “earn back” scheme that incentivizes the city to invest in growth initiatives in return for a share of additional tax dividends. It allows the 10 authorities to recoup up to £30 million a year from central government from raised business rates, on a payment-by-results basis. The funds can then be recycled and reinvested in further infrastructure projects.

So, what have these initiatives achieved? Employment growth in Manchester in 2015 has outpaced the North West and the UK generally, setting the scene for Manchester’s GVA growth to reach 2.5% a year in 2015-18, overtaking the UK. The challenge is to capitalize on this success, and drive faster growth in the North West and the rest of the North of England.

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used by the finance minister, George Osborne, for the Government’s attempt to address the country’s South-North economic imbalance. The policy rests on the presumption that, by working together, the Northern economy can be stronger collectively than the sum of its parts. The Northern Powerhouse has been hard to define, and its impact will be difficult to measure, particularly given the imbalances within the region. However, it shows how a collection of seemingly disparate city deals can be wrapped up into an appealing narrative that mobilizes city authorities and investors alike.

As the UK Government is aware, devolution to cities and regions is not a magic bullet. It will not deliver significant, sustainable economic growth overnight. But the early signs are promising. According to research by the EY ITEM Club, the North West and West Midlands regions have posted growth in excess of the national average since 2012. And as the effects of better skills, more investment and improved infrastructure feed through, these regions and other cities that have agreed devolution deals are better placed to navigate the coming economic waters, whether they are calm or choppy.

People around the world will be drawn to cities by some of the same basic attractions that brought their forebears together 11 millennia ago: housing, social networks and the chance to improve their lot in life. Urbanization will continue to accelerate over the coming decades. This brings unprecedented opportunity, but competition is fierce. Capital and people are mobile. So cities must carve out an environment that attracts and retains them. And the best way of doing that is to take the tools they need and do the job themselves. 🌐
Online child sexual exploitation is a crime that spans national boundaries.
Frase Nicol explores attempts to coordinate an international response to the global crime of online child sexual exploitation

The internet provides today’s children with opportunities for education and enjoyment that were unimaginable just a generation ago. They can find out about the world and connect with each other with one click or tap. But, using digital platforms to explore their environment and communicate with others also exposes our children to new threats. Among these threats is the risk of online child sexual exploitation (OCSE). Children can be targeted and sexually exploited by abusers they have never met, who hide behind false identities and take advantage of the willingness of children to form “trusted” relationships over the internet.
Last month, the United Nations Human Rights Council debated a resolution that calls upon countries to significantly step up their efforts to tackle OCSE through the implementation of a coordinated, multi-agency response. Such an approach will enhance many countries' existing response to this crime, improve the success rate of investigations and the identification of more victims. If this resolution is passed, it will mark a significant step forward in lobbying efforts with those countries that are yet to develop capabilities dedicated to tackling OCSE.

The UN debate follows closely on from another recent significant event, when more than 50 countries attended the WePROTECT Children Online Summit in Abu Dhabi in November 2015. These countries, along with a number of industry partners and nongovernmental organizations (NGOs), formally adopted the WePROTECT Model National Response (WePROTECT MNR). The WePROTECT MNR sets out the areas of capacity and capability that a country needs to develop in order to play an effective role in preventing and tackling OCSE.

Crucially, the countries committed to using the WePROTECT MNR to help them identify gaps in their current capabilities. This will form the basis of future plans to drive progress and action. So, what is the WePROTECT MNR designed to address, and where can policymakers and service deliverers seeking to use it find support?

**Barriers to progress**

OCSE is a complex crime, often involving large numbers of victims across the world. So investigating and prosecuting cases is a challenge. Success requires a sophisticated, joined-up, global response, involving law enforcement agencies, technology companies and children’s services. Time is always of the essence, because the objective is to end the child’s suffering as soon as possible. But many barriers can slow down an investigation. The WePROTECT MNR has been designed to provide guidance on everything from victim services and legislation, to a robust law enforcement response and responsible media.

“Our aim is that every country brings together all those with a responsibility to protect children online.”

**Baroness Shields** is the Minister for Internet Safety and Security in the UK Government. In 2014, the UK Government launched the WePROTECT initiative. WePROTECT is a global alliance comprising governments and law enforcement agencies from more than 60 countries, 20 technology companies and a number of leading international NGOs. WePROTECT is working with UNICEF to fund global projects to tackle online child sexual exploitation (OCSE) and is promoting adoption of the Model National Response. Here, Baroness Shields discusses the work of WePROTECT.
reporting. If it is widely adopted, it could help overcome many of these barriers, and speed up OCSE investigations and prosecutions.

WePROTECT MNR is designed to start to address a series of challenges. First, OCSE is not a crime in every country. A recent review of global legislation by the International Center for Missing and Exploited Children found that 53 countries still do not have laws specific to online child sexual abuse material. So criminals can operate from countries where the illegality of their actions can be called into question.

Second, law enforcement does not always prioritize or understand how to deal with OCSE. Very few countries have a dedicated OCSE law enforcement capability. Even where these teams exist, many have not received specialist training in how to investigate these crimes and how to support the victims. Police may move precipitously, making arrests or seizing material without properly gathering the evidence to secure a conviction, and ignoring intelligence that may uncover a wider network of offenders. Even more critically, they may not be considering the welfare of the victim, which should always be paramount in the investigation and prosecution.

Third, countries’ legal systems are not set up to protect the victim. This can damage prosecutions and exacerbate the emotional harm to the victims. In some countries, the victim may be liable for prosecution if they have shared a sexually explicit image of themselves with someone they believed they could trust. Not all legal systems have developed processes for dealing with victims of sexual abuse. Judiciary and prosecutors need to be trained in the challenges of these cases.

How does being part of WePROTECT support companies, governments, law enforcement agencies and NGOs that seek to tackle OCSE?

“WePROTECT is focused on concrete action – making sure there are dedicated law enforcement resources for tackling child sexual exploitation and abuse, or the right legal framework. Countries and companies can also improve their approach to tackling this crime by using insight and intelligence from resources and global leaders in this field, which have been brought together by WePROTECT. For instance, some 40 technology companies from around the world were able to tap into the brightest minds from Google, Facebook and Microsoft earlier this year at the WePROTECT Industry event sponsored by EY. Additionally, WePROTECT has developed the ‘Model National Response’ to provide countries with guidance to develop their own capabilities in tackling online CSE.”

Last year, many countries signed up to the WePROTECT statement of action. How will this help the global fight against OCSE and who would you like to see sign up this year?

“The scale of our ambition is only increasing in 2016. Our aim is that every country brings together all those with a responsibility to protect children online. In 2015, this included China, extending WePROTECT’s reach to a further 22% of global internet users. Those countries who sign up commit to use the MNR to guide their national action to tackle OCSE – which in turn will improve international coordination. They also commit to report back to the international community on what they’ve achieved and the challenges they’ve faced, so that everyone can learn from each other’s expertise and good practice.”

What have been the major achievements of WePROTECT since 2014, and what do you hope it will achieve between now and the next summit in 2017?

“As a result of the first year of our program to build capacity, a new police unit has already been established in Jordan, solely dedicated to investigating online crimes against children, and in Guatemala two exploitation networks were dismantled. That’s more perpetrators stopped and more children rescued. I have always believed that a government-led approach only takes us so far. Strong partnerships with industry are imperative if we’re to achieve our vision. And I am encouraged by the commitment of so many leading tech companies to protect our children. As a result of action by Microsoft and Google, we’ve seen this vile material disappear from their search results and an eight-fold reduction in people looking for these pictures and videos online.”
with digital evidence and interpreting victim and witness testimonies. Special facilities should also be provided for the victims to ensure that they benefit from an environment that will achieve the best evidence.

The fourth challenge is that not all countries have specialist child protection workforces. Even in cases where there has been no-contact sexual abuse, often victims will have been blackmailed. In some cases, explicit images of the victim may have been released to family, friends or wider social media groups. Child victims of all forms of sexual exploitation and abuse require specialist support, counseling and careful and sensitive handling.

Fifth, ways for the public to report abuse or child sexual abuse material (CSAM) vary considerably. It is essential to ensure that there are accessible ways for the public to report OCSE or CSAM. This also provides a clear deterrence message to offenders. Likewise, the level of public awareness of the crime, and how to reduce risk on the internet, varies considerably.

Sixth, networks with local internet and communications service providers vary. Images can be hosted and shared on infrastructure owned by private or public listed companies, so their cooperation is critical. Many global companies like Microsoft, Facebook, Google and Twitter proactively monitor for CSAM, and have well-developed mechanisms for identifying and reporting this to law enforcement via a legally designated central body in the United States, called the National Center for Missing and Exploited Children. Regional or local service providers working with law enforcement that is not so specialized in dealing with these matters may not be able to respond so effectively, particularly in those countries without clear processes in place.

Finally, OCSE can go unreported. Some media outlets have been known to attack or stigmatize the victims. Journalistic standards that do not support the dignity, privacy and confidentiality of victims can result in a culture that implicitly supports the offenders by discouraging victims from coming forward.

Taking global action to address OCSE requires a comprehensive and coordinated response by all sectors. It is critical that organizations are able to engage with their counterparts in other countries, to learn from others and improve cooperation across geographical boundaries. OCSE is a global crime and any response will be developed and delivered most effectively by participating with the international initiatives already underway.

“Journalistic standards that do not support the dignity, privacy and confidentiality of victims can result in a culture that implicitly supports the offenders”

The WePROTECT MNR maps out the different aspects of an effective national response. The next iteration of it will clarify the definitions supporting each area and the outcomes that should be sought, and point toward examples of good practice and sources of guidance and support.

The WePROTECT MNR establishes a common language about what needs to be done, but it does not prescribe how each service should be provided. This will vary country by country. In time, and with further development, the WePROTECT MNR could evolve into an evaluative framework that provides a means for countries to assess themselves, or for organizations such as UNICEF to target their capacity-building support and evaluate the impact of the support provided.

As it currently stands, the WePROTECT MNR serves the important purpose of showing policymakers the breadth of the challenge, and provides access to a valuable source of advice. For policymakers and law enforcement leaders asking “How do we protect our children online?”, WePROTECT MNR is the beginning of an answer.

Next steps

National governments, law enforcement agencies, NGOs and companies can benefit from the investments already made, and the networks already established, as they seek to build their ability to tackle OCSE.
Parthenon-EY has published a report entitled: *Driving grades, driving growth: how private capital in education is increasing access, inspiring innovation and improving outcomes.* The report explores how private capital has been a game changer in the world of education. Here is a summary of the report’s findings.

**How is the education market evolving?**

<table>
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<tr>
<th>Every US$1 spent on education can result in US$10-US$15 in economic growth</th>
<th>Over the past 30 years in emerging markets: Increase in primary school enrollments Increase in secondary school enrollments</th>
<th>But many governments can’t keep up Public higher education institutions in emerging markets are oversubscribed, with demand up to 20%-50% higher than available capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private enrollment growth has outpaced public growth</td>
<td>Kindergarten-12th grade enrollment growth, select emerging markets</td>
<td>M&amp;A activity in education in emerging markets increased by 6x since 2000</td>
</tr>
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**Private enrollment growth has outpaced public growth**

| Brazil 5% private -2% public | UAE 8% private 4% public | China 8% private 2% public | India 8% private 1% public | Malaysia 6% private 0% public |

**How does private capital benefit education?**

- **Private financing allows institutions to scale, supporting access for more children**
- **Competition encourages innovation, leading to new and more effective models of education delivery**
- **Private capital is driving education providers to track data and improve outcomes**

**What can stakeholders do?**

**Governments**
Design transparent, consistent and supportive regulations

**Education operators**
Quantify outcomes to demonstrate and improve impact over time

**Investors**
Focus on education quality over the long term to drive business sustainability

Read the full report at [parthenon.ey.com](http://parthenon.ey.com)
In the US, government leaders are under extraordinary pressure to do more with existing, or fewer, resources. Sequestration, reduced tax revenues, soaring deficits and a deepening national debt are encouraging decision-makers to align resources where they can achieve the best outcomes. At the same time, demand for visibility and transparency in the use of those resources is growing.

The US Government & Public Sector practice of Ernst & Young LLP combines an understanding of the public sector’s diverse needs, focused on delivering improved public services, with leading private sector practices. EY brings together highly skilled professionals across advisory, assurance, tax and transaction advisory services.

This integrated approach facilitates support and flexibility at the federal, state and local levels. Our heritage is based on providing objective, fact-based insights, and our broad portfolio of services is aimed at driving relevant, tangible results.

Here are some examples of how EY has been working with government at federal, state and local levels across the US.

**Fraud risk**

EY has helped a large federal government department to conduct an organization-wide fraud risk assessment. The purpose was to identify potential and actual vulnerabilities and exposures to fraud involving the client’s activities and their impact. The assessment created a structure for assessing the likelihood and impact of fraud occurring and determining how the risk of fraud can be best managed. The work performed allowed the department to identify areas of high vulnerability within the procurement process where controls required strengthening to minimize the risk of fraud.

**Shared services**

EY is working with a branch of the US armed forces organization to facilitate a finance and accounting shared services consolidation. This effort will allow
the organization to apply commercial best practices and realize efficiencies. The organization has service personnel on operations around the world. Improvements in the way it is administered will free up resources that can be used to maintain and improve support services for the forces personnel and their families before, during and after deployments.

Managing risk
Interest in enterprise risk management (ERM) is growing fast among federal agencies. A number of them have appointed a chief risk officer to manage their ERM efforts. Federal entities are starting to focus on enterprise solutions to manage risks. EY’s US Government & Public Sector Enterprise Risk Management team offers a proven methodology and approach. It can help agencies leverage the investments they make to comply with Office of Management and Budget Circular A-123 Appendix A and other requirements, by replacing isolated initiatives and fixes with a holistic approach to integrating internal controls, compliance and risk management initiatives under an ERM framework.

Business transformation
EY is working with a southern state’s health and human services agency, which provides services for people with mental illness, developmental disabilities and substance use disorder. The agency is working to improve its core business processes and performance, and better demonstrate the value and impact of the services that it delivers. EY is supporting the organization’s effort to transform into a high-performing agency that develops and implements priorities that are strategically aligned with a vision and effectively communicated.

State and city support
EY has helped the government of a New England state, and the administration of this state’s capital city, with a wide range of activities. These include assessing risks; reviewing procurement procedures; enhancing hiring and other human resources procedures; testing information systems and security; streamlining operational procedures; assessing audit controls; reviewing pensions, pay and benefits; evaluating construction projects; and enhancing accounting policies and procedures.
Why was the internet more valuable than a tractor to Bangladeshi farmers?

In Bangladesh, EY is helping rural producers connect to urban buyers online. ey.com/cr #BetterQuestions