



# Cityquest KAEC FORUM

November 25 - 26, 2013,  
King Abdullah Economic City, Saudi Arabia



## New Cities: Opportunities, Visions and Challenges Cityquest - KAEC Forum 2013

### Summary and Analysis Report



**NEW CITIES  
FOUNDATION**



**KING  
ABDULLAH  
ECONOMIC  
CITY**



November 25 – 26, 2013,  
King Abdullah Economic City, Saudi Arabia

# New Cities: Opportunities, Visions and Challenges Cityquest - KAEC Forum 2013

## Summary and Analysis Report

Dr. Sarah Moser

Assistant Professor, Department of Geography, McGill University

This report was written by Dr. Sarah Moser on behalf of the New Cities Foundation and published in May 2014. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Foundation or of its members.

Edited by Naureen Kabir Collings, Director of Research, New Cities Foundation.

Please cite this publication as:

Moser, Sarah (2014), *New Cities: Opportunities, Visions and Challenges Cityquest KAEC Forum 2013: Summary and Analysis Report*, New Cities Foundation, [online] Available: [bit.ly/CityquestReport2013](http://bit.ly/CityquestReport2013)

You can copy, download, or print this report for your own use, and you can include excerpts from New Cities Foundation publications, databases, and multimedia products in your own documents, presentations blogs, websites, and teaching materials, provided that suitable acknowledgment of the New Cities Foundation as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [contact@newcitiesfoundation.org](mailto:contact@newcitiesfoundation.org). Request for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the New Cities Foundation.

## Executive Summary

On 25-26 November 2013, the Cityquest - KAEC Forum provided an extraordinary opportunity for key decision-makers, thinkers, entrepreneurs and builders of nine of the most ambitious new cities in the world to come together in dialogue. The Cityquest - KAEC Forum was organized by the New Cities Foundation, a leading global non-profit organization, with a vision to build more inclusive, dynamic and creative cities benefiting people and society. It was hosted in King Abdullah Economic City (KAEC), an ambitious urban mega project in Saudi Arabia on the shores of the Red Sea. The Forum brought together 132 participants from over twenty countries and four continents for two days to discuss urban issues and strategies.

As the first event of its kind to gather global leaders to focus specifically on new cities, the Forum was a unique opportunity to critically examine emerging patterns in new cities from a transnational comparative perspective. It was also a chance for new cities to compare notes and learn from each other's successes and failures. Following the Forum, Cityquest is an ongoing initiative that aims to establish a community of the builders of large-scale new city projects and their partners around the world.

The goal of this report is to distill key themes, concerns, goals and strategies discussed at the Cityquest - KAEC Forum 2013 for the purpose of developing an understanding of the common strengths, challenges and opportunities of each project and of the endeavor to create new cities in general. The report is structured as follows:

- A. The first section provides a brief summary of the nine cities featured at the Cityquest - KAEC Forum.
- B. The second section provides an overview of the main themes, common visions and challenges that emerged from the presentations.
- C. The third section summarizes the lessons learned from the Forum, including some specific strategies and points put forth.
- D. The fourth and final section points out some of the gaps in the discussion and unanswered questions that could be explored in more depth at future events.

## Main themes, common visions and challenges

While the cities presented were vastly different in terms of geography, climate, social, political and cultural contexts, they shared a surprisingly high number of common goals. These common aims demonstrate that planners, officials and architects have been influenced by scholarship and evidence-based research on best practices.

Themes explored include: sustainability, controlled urban growth, financing strategies, global connectivity and outlook, mobility, mixed-use, economic diversification, entrepreneur-friendly cities, governance, 'smart' cities and employing relevant technologies, and the importance of high density development.

Each city has its own set of challenges linked to its local political and social context, climate, resource scarcity, cultural values and other factors. Some of the common challenges discussed were: how to design a new city, public-private partnerships, 'best practices', defining a 'green' city, elitism, technology and cities, avoiding

the static master plan, global vs. local, governance, training the residents, risks, the ability of new cities to outpace sprawl and rapid urbanization, and how to utilize existing tools on the scale of mega-projects.

## Lessons learned

Presenters and discussants at the Cityquest - KAEC Forum revealed a number of concrete strategies that have proven successful. While ideas are always dependent on context to some extent, various approaches to creating new cities emerged as being important irrespective of the cultural or geographical context. Examples of lessons learned include: the necessity of public-private partnerships, the importance of fostering a rich entrepreneurial ecosystem, cultivating what is unique about the city, fostering public engagement, nurturing a community with variety, the value of local identity, designing for people over cars, maintaining a flexible master plan, striking a balance between basics and innovation, valuing heart and soul, preserving history, and methods of attracting people and businesses.

## Gaps in the discussion

In a two-day conference, it is impossible to cover all topics thoroughly and there are a number of themes that could be further explored in future Cityquest gatherings, including: environmental sustainability, social and cultural sustainability, learning from failures, city governance, including the urban poor, and including researchers.

## Concluding remarks

New cities hold the unprecedented potential to address the urgent urban problems of our time and to function as laboratories for leading-edge ideas and technologies. Understandably, there are lingering concerns that many new cities may fail to attract business or long-term residents, and to foster an entrepreneurial environment that creates jobs and equitably generates wealth.

If the best ideas from designers, policy-makers, entrepreneurs and scholars are integrated into new

cities, if residents play a prominent role in shaping new cities, and if lessons learned from the past are employed to avoid major mistakes, it is possible that the current generation of new cities being created could serve as templates in the years to come. In a very tangible sense, we are building today the next chapter of our future.

# Contents

<b>Introduction.....</b>	<b>6</b>
<b>A. City Summaries</b>	
Gujarat International Finance Tec-City, India.....	8
HafenCity Hamburg, Germany.....	10
Iskandar Malaysia, Malaysia.....	12
King Abdullah Economic City, Kingdom of Saudi Arabia.....	14
Lavasa, India.....	16
Mohammed VI Green City, Morocco.....	18
Putrajaya, Malaysia.....	20
Rawabi, Palestine.....	22
Songdo, South Korea.....	24
<b>B. Main Themes, Common Visions and Challenges .....</b>	<b>26</b>
<b>C. Lessons Learned.....</b>	<b>29</b>
<b>D. Gaps in the Discussion.....</b>	<b>34</b>
<b>Concluding Remarks.....</b>	<b>36</b>

## Introduction

“Building a city is not for the faint of heart. It requires laying out a vision and the resolute determination to achieve this vision.”

Fahd Al-Rasheed

Managing Director and CEO,  
Emaar, The Economic City, King Abdullah Economic City

The speed at and extent to which the world is urbanizing is unprecedented, with over half the world’s population currently living in cities. By 2050 this will have risen to two-thirds. In China, 300 million people will move to cities in the next 15 years and the equivalent of the built infrastructure of the entire United States must be built by 2028 to keep pace. There will soon be 250 million new urban residents in India and 380 million in Africa.

Strategies to manage rural-urban migration and massive urban growth have been diverse: slum improvement programs, densification, urban infrastructure upgrades, expanded suburbs and satellite towns, brownfield developments and the creation of new master-planned cities.

The creation of new cities is the most ambitious response to the urban revolution. Ideally, new master-planned cities can offer the benefits and opportunities of city living without the pollution, traffic and inefficiencies of many existing cities. New cities offer the unique possibility to learn from the wisdom and functionality of existing cities and to avoid mistakes of the past, while allowing us to re-invent the way we use cities. Ambitious city-scale projects are vulnerable to multiple risks related to economic feasibility, livability and a lack of dynamism, as has been demonstrated by many post-World War II and post-colonial new cities.

New cities offer unparalleled opportunities to experiment with innovative ideas, learn from past mistakes, reproduce the beauty and energy of

established cities and integrate technologies from the earliest stages. Starting from scratch means that new cities have the potential to address and improve upon problems of existing cities, be smarter and less wasteful, and more socially inclusive and creative.

In recent years, the potential of new master-planned cities to act as economic engines has caught the imagination of leaders around the world. Eighty percent of the world’s wealth is now created in cities, a fact that has been seized upon by governments, entrepreneurs, scholars and NGOs.

It is estimated that there are currently hundreds of new cities being built or planned across Asia, the Middle East and Africa. The tremendous scale at which resources are being invested in this trend warrants a thorough examination of new cities and their potential and limitations to solve problems associated with massive urbanization.

U.S. Senator Daniel Moynihan once said that to create a great city, ideally you must “build a world-class university and wait 200 years.” Embedded in this comment is the belief that time and organic growth combined with research universities are still the optimal ingredients for creating an ideal city. The key challenge facing city-builders today is how to replicate the vibrancy and dynamism of the world’s great cities on an accelerated timeline to accommodate the explosive urban growth of the past several decades.

## Cityquest – KAEC Forum

The Cityquest - KAEC Forum 2013 provided an extraordinary opportunity for key decision-makers, thinkers, entrepreneurs and builders of nine of the most ambitious new cities in the world to come together for a dialogue on new cities. Organized by the New Cities Foundation and hosted in King Abdullah Economic City (KAEC), an ambitious urban mega project in Saudi Arabia on the shores of the Red Sea, 132 participants from over twenty countries and four continents gathered for two days to discuss urban issues and strategies.

As the first event of its kind to bring together global leaders to focus specifically on new cities, the Forum was a unique opportunity to critically examine emerging patterns in new cities from a transnational comparative perspective. It was also a chance for new cities to compare notes and learn from one another's successes and failures.

The goal of this report is to distill key themes, concerns, goals and strategies discussed at the Cityquest - KAEC Forum 2013 for the purpose of developing an understanding of the common strengths, challenges and opportunities of each project, and of the endeavor to create new cities in general.

Information for this report comes from the invited speakers' presentations at the Forum. In-depth qualitative interviews were also conducted with key experts and decision makers at the Forum, who are in a position to provide insights about the vision and priorities of new cities from their various roles in the creation of these cities.

This report is structured in four sections:

- A. The first section provides a brief summary of each of the nine cities featured at the Cityquest - KAEC Forum.
- B. The second section provides an overview of the main themes, common visions and challenges that emerged from the presentations.
- C. The third section summarizes the lessons learned and general takeaways from the Forum and includes some specific strategies and points that were put forth.
- D. The fourth and final section points out some of the gaps in the discussion and unanswered questions that could be explored in more depth at future events.



## A. City summaries

### 1. Gujarat International Finance Tec-City, India

Gujarat International Finance Tec-City (GIFT) is being designed as a global financial and IT services hub. Located in Gujarat, a prosperous state in far western India, between the state capital of Gandhinagar and the commercial hub of Ahmedabad, GIFT seeks to feed off the economic drivers of each city. Some of the key ambitions for the city include:

- Zero accidental deaths – no bicycle, car, or pedestrian accidents
- Using the city surface strictly for people and putting transportation and infrastructure underground
- The ability for residents to travel between any two points in the city in 10 minutes
- Providing potable tap water to prevent the use of bottled water
- A rapid response system using an urban control center to monitor potential problems
- Providing social, human spaces of varying scales for a range of recreational activities
- Creating different 'zones' to cater to various institutions (education, entertainment etc) to promote employment and attract talent.
- Creating a 'zero-dig' city, in which the city's connector tissue is bundled together in service trenches so the city will not need to be dug up after it is built



#### Key Facts

*Timeframe:* 2007-2027

*Intended population:* 50,000 (600,000 commuters)

*Size:* 3.99 square kilometers

*Estimated cost:* USD \$11 billion

*Financing:* The primary investors are Gujarat International Finance Tec-City Company Limited (GIFTCL), Infrastructure Leasing & Financial Services, and Gujarat Urban Development Co. Ltd (GUDC). GIFTCL plans



to develop, finance, and implement all infrastructure in and around GIFT on a turnkey basis to ensure that all services relating to connectivity, communication, technology, security, and quality of life are established and sustained.

*Planners / contractors:* GIFT is being designed by the Fairwood Group as the lead designer. The Fairwood Group led a consortium of 43 partners, contributing the bulk of the design effort with 18 teams. East China Architectural Design & Research Institute (ECADI) is one of the Consortium partners. Other designers were Tongji (China), Forum (Singapore), ABB (Germany), Louis Berger (US), Stanley (US), IL&FS Eco-smart (India), CES (India), Spectral (India), British Telecom (UK), and Ultra PRT (UK), with Mackenzie and Hewitt as additional consultants.

*Environmental and sustainability strategies:* GIFT is planning a captive power plant (1000MW electricity supply), power grid (by ABB Group of Switzerland), underground electricity cables, natural gas distributed via pipes (safer and cheaper than cylinders), district (centralized) cooling, green buildings that feature solar water heating and rain water harvesting, 65% green cover, zero discharge for the city, a waste to energy system, no garbage trucks or garbage collection, and a PRT (personal rapid transit) system.

*Industries:* GIFT intends to be a hub for the global finance services industry and will create a stock exchange. They also seek to attract global banks and software and technology companies.

*Attractivity:* It is expected that in the context of India, high quality physical infrastructure (roads, electricity, water, broadband, etc.) will be able to attract a great number of finance and tech firms to relocate their operations from Mumbai, Bangalore, and Gurgaon, all of which have expensive or inadequate infrastructure. As a Special Economic Zone, GIFT also seeks to attract companies that want to take advantage of its more business-friendly regulatory environment. Lifestyle features such as parks and a traffic-free environment will ideally attract people who wish to get away from the crowding and traffic typically found in Indian cities.

*Local challenges:*

- Land scarcity and a potentially large population means that people will need to live more vertically than they have traditionally.
- The multiple permits required by various levels of government are slowing down the process of creating the city.
- Trying to involve the public to help determine the order of development has been difficult and time consuming.
- Attracting financing has been a challenge, as money is attracted to a success story that has already been built, rather than a computer model.

## 2. HafenCity Hamburg, Germany

Currently Europe's largest inner-city development project, HafenCity is located in the heart of the maritime city of Hamburg, Germany's second largest city, on the northern flank of the river Elbe. The project replaces an outdated industrial harbor in a central city location, and transforms an underused area into a walkable and bikeable mixed use 'knowledge-economy' area with new offices, community facilities, residential and leisure areas and a high number of public spaces. HafenCity has hired a variety of developers and architects through public competitions, and deliberately mixes social and cultural institutions, commercial structures and residential buildings, and high and low-income housing to foster diversity and add to the excitement of urban life. To emphasize people over cars, a spectrum of choices is offered to residents: extensive bike paths and pedestrian areas, buses and subway connectivity, and in the future, car sharing services including electric vehicles. HafenCity, which translates to 'port city', today exclusively serves as a cruise ship harbor. To accommodate residents in such proximity to these port activities, noise absorption strategies were employed in the buildings. Residents and visitors embrace the vista upon the industrial harbor on the opposite southern side of the Elbe and consider the working harbor as an interesting, unique component of living in HafenCity and as a fundamental aspect of Hamburg's cultural heritage as a port city.



© HafenCity Hamburg GmbH / Fotofrizz

"HafenCity Hamburg is a heterogeneous development. Next to working offices, leisure and retail uses, it includes cooperative housing, community housing, as well as luxury housing next to each other."

"When we do urban development on such a scale we cannot reduce complexity but must embrace complexity and reach out horizontally and not think in columns."

"The first people and companies moving into the area are pioneers and play a tremendously important role as supporters of the future development."

**Jürgen Bruns-Berentelg,**  
CEO of HafenCity Hamburg GmbH

### Key Facts

*Timeframe:* 1997-2025

*Residents:* Around 12,000 by 2025

*Employees in area:* Around 45,000 by 2025

*Size:* 1.27 square kilometers

*Master plan:* Aims to enlarge the city center by roughly 40%

*Estimated cost:* USD \$15 billion (\$11.7 billion USD of private investment, \$3.3 billion USD public funds)

*Financing:* The entire development area of HafenCity is under the full ownership of the City of Hamburg, which named HafenCity Hamburg GmbH (HCH) its trustee. HCH, a wholly city-owned subsidiary, is master developer and finances all elements of public infrastructure (roads, bridges, parks, social and cultural developments) from land proceeds. The private sector develops individual projects and follows regulatory requirements laid out by the city. With the municipality taking the lead, HCH demonstrates how public and private sectors can successfully cooperate in a way that shifts the core of the risk profile to benefit city and investors.

*Planners / contractors:* HCH is the master developer. For individual projects, HCH enforces a strictly competitive bidding process for building sites, reflecting 70% concept and 30% price. The architecture is based on a master plan, urban design plans and architectural competitive processes, with the participation of more than 700 architects to date.

*Environmental and sustainability strategies:* HCH evaluates the proposals of all prospective developers and architects against its own HafenCity Ecolabel, which looks beyond energy performance. The sustainability issues include a fine-grained mixture of uses, a high degree of walkability, excellent public transport (subway line and fuel-cell buses), district heating with 92% renewable energy and the reduction of individual car-ownership by station-based car sharing systems.

*Industries:* To make HafenCity Hamburg less vulnerable to downturns, the city has sought to attract a diverse range of knowledge industries, including NGOs, museums, start-ups, and cultural industries, such as digital and media companies and artists.

*Energy sources:* HafenCity Hamburg relies on clean thermal and geothermal energy as well as on different district heating systems.

*Precedents:* Various urban port areas were studied: London Docklands, Baltimore harbor, Boston Harbor, Battery Park in New York City, Puerto Madero in Buenos Aires, northern European harbor areas including Rotterdam, Oslo, Copenhagen and Malmö as well as Hammarby in Stockholm.

*Attractivity:* Hamburg has a relaxed, cosmopolitan atmosphere and HafenCity Hamburg is attempting to extend this social diversity and dynamism. Their strategy is to provide high-quality space to internationally-oriented companies and livable strategically-located homes and public spaces for residents. Various infrastructure and amenities are located in HafenCity Hamburg: a diverse range of cultural institutions, a cruise terminal, a philharmonic orchestra, retail, leisure, and food and beverage destinations as well as senior homes. The fine-grained urban design and architecture aims to attract people of different ages, incomes, and occupations by providing a range of spaces that are available to buy or to rent.

*Local challenges:* Hamburg faces regular flooding and HafenCity is thus susceptible to similar challenges. In addition to building the city on three levels to manage rising waters, artificial compacted mounds have been created to retain water and further protect the city from flooding. The city is also enclosed by a main dyke.

### 3. Iskandar Malaysia, Malaysia

Strategically located at the tip of the peninsula of Malaysia and adjacent to Singapore, Iskandar Malaysia is the single largest special economic zone ever to be developed in the region. The purpose of the development is to transform southern Johor state into a high income and sustainable metropolis of international standing. The area is divided into 'Flagship zones', each consisting of a different themed cluster:

Flagship A: heritage and finance and business district

Flagship B: an administrative center with education, leisure and tourism, and healthcare clusters

Flagship C: a port / free trade zone / industrial and logistics center

Flagship D: a port, industrial zone / technology park

Flagship E: luxury shopping destination, cybercity, industrial and logistics center.

Iskandar Malaysia is an 'invest, work, live and play' environment that seeks to balance lifestyle with good quality education and healthcare facilities supported with leisure elements within a conducive work environment. Architecture and development projects are built using materials and plants drawn from the wealth of local knowledge, design and aesthetics found in Malaysia. While striving to be international, planners and developers of Iskandar Malaysia prioritize and reinforce the distinct local culture and identity of southern Malaysia, which will differentiate this project from other projects in the world.



"We want to be as smart as possible. In our framework of a smart city, we are not only about embracing technology and infrastructure, but also smart people... This is the hard bit."

"Know your limitations and resources. Build on the resources you have. We are leveraging on our strategic location next to Singapore."

**Datuk Ismail Ibrahim,**  
Chief Executive,  
Iskandar Regional Development Authority

#### Key Facts

*Timeframe:* 2007-25

*Intended population:* 3 million (2025), 1.4 million workforce

*Size:* 2,217 square kilometers (3 times the size of Singapore)

*Estimated committed investments to date (2007 – 2013):* USD \$40.2 billion

*Financing:* The Malaysian government spent USD \$2.8 billion to finance the improvement of existing infrastructure and the creation of new critical infrastructure. The balance of investments is from private investors, both foreign and domestic. Foreign investors come from diverse countries including Singapore, the U.S., UK, Spain, Japan, Korea and Australia. Private local investors include Khazanah Nasional Berhad, Johor Corporation, UEM Sunrise Berhad, Medini Iskandar Malaysia, Sunway Group, Genting Group, Iskandar Investment Berhad, Iskandar Waterfront and many more.

*Planners / contractors:* Five local authorities have jurisdiction over different areas in Iskandar Malaysia.

*Environmental and sustainability strategies:*

- Iskandar Malaysia is the pilot site for the Low Carbon Society (LCS) initiative, a collaboration between Universiti Teknologi Malaysia, IRDA, Japan's Kyoto University and Okayama University and supported by JICA Japan.
- Among the LCS initiatives will be: recycling and upcycling programs, improved and enhanced public transportation, including Bus Rapid Transit, a Rail Transit System linking Singapore to Johor Bahru, and encouraging the use of renewable energy.

*Industries:* Building on an existing strong manufacturing and industrial base, Iskandar Malaysia will further develop the services sectors while reinforcing targeted manufacturing sectors. The key manufacturing sectors are electrical and electronic, oleo chemicals and petrochemicals including oil and gas, and agro and food processing. In the services sectors, Iskandar Malaysia is promoting investment into the tourism, education, healthcare, creative, logistics and financial services sectors. Each of the services sectors has catalytic projects to jumpstart investments into the sector. Some of the catalyst projects that have been implemented are the Johor Premium Outlets, LEGOLAND, Puteri Harbor Family Theme Park, EduCity with branch universities from University of Newcastle, University of Southampton and University of Reading, and Pinewood Iskandar Malaysia Studios, which are bringing in more visitors and drawing international interest into the development.

*Precedents:* Iskandar Malaysia looked to a variety of precedents, including Vancouver and Melbourne as top-rated livable cities, Shenzhen and its synergy with Hong Kong as well as the healthy competition between Abu Dhabi and Dubai.

*Attractivity:* Iskandar Malaysia seeks to attract people from the broader ASEAN region (Association of Southeast Asian Nations) by being accessible, affordable, safe and a reliable region to visit and in which to invest. The region offers proximity to Singapore and has a more orderly, clean and green lifestyle than can be found elsewhere in Malaysia. As a special economic zone, Iskandar Malaysia seeks to draw investments with its regulatory framework and incentive (fiscal and non-fiscal) packages.

*Local challenges:*

- Trying to balance government intervention while allowing the private sector to lead the economy.
- Learning from international examples while navigating a unique path that charts an original direction to develop unique solutions to local problems.

## 4. King Abdullah Economic City, Kingdom of Saudi Arabia

Located on the coast of the Red Sea, 100 km north of Jeddah, King Abdullah Economic City (KAEC) is one of four new cities being created in Saudi Arabia to promote industrial expansion, diversify its economy away from oil, and to provide housing and job opportunities for a young population, 65% of which are under the age of 30. Centered on a new port, the goal of KAEC is to become a global logistics and manufacturing hub. Through its 'industrial valley', KAEC seeks to develop sectors including logistics, fast moving consumer goods (FMCG), plastics, automotive, building materials, and pharmaceuticals.

KAEC's goals of being socially and culturally sustainable can be seen in its most recent master plan, which promotes public transportation, walking and cycling rather than cars. Rather than canals, KAEC has prioritized a wadi system that uses the landscape and natural plants to manage flooding. The central business district is clustered around a high speed rail station that will connect KAEC with Jeddah, Makkah and Medina.



### Key Facts

*Timeframe:* 2005-2025+

*Current population:* Approximately 3,000

*Intended population:* 1.7 million

*Size of city:* 181 square kilometers

*Estimated investment:* Over USD \$100 billion

*Financing:* The city is being privately financed by Emaar, The Economic City (EEC), a Tadawul-listed real estate development and management company. When it offered its first successful public offering in July 2006, EEC made history: more than half of the Saudi population bought stock in it. EEC is headed by Emaar Properties PJSC and a number of high-profile investors from Saudi Arabia.

*Planners / contractors:* Emaar, The Economic City, the master developer of KAEC, is working with multiple partners on the project including Saudi Binladin Group, SOM (as a consultant to the master plan) and dozens of other local and international contractors.

#### *Environmental and sustainability strategies:*

- KAEC provides a dense, walkable environment that prioritizes walking, bicycling, and public transportation, and minimizes car usage.
- A flood prevention system using natural wadis capture annual flood water and allows it to trickle down and replenish groundwater.
- Indigenous desert plants are being used to minimize watering and to create a unique, local identity.
- Onsite construction materials are being re-used and recycled and the city aims to dramatically reduce waste in the city, particularly compared to the average urban Saudi household.

*Industries:* Port for shipping, logistics, FMCG, automotive, pharmaceuticals, food processing.

*Energy sources:* Connected to the national grid, captive diesel generation, solar.

*Precedents:* KAEC has looked to Singapore as an example of a strong economy built around a port, and a template of using public-private strategies to nurture a knowledge economy, develop advanced manufacturing and attract global talent.

*Attractivity:* KAEC's approach to attract people and businesses to the city is 'customer centric'. In other words, they are trying to provide what their 'customers' (i.e., those moving to the city) require in order to live and work successfully. KAEC anticipates that 'customers' will be attracted to the lifestyle and amenities of the city, including high-quality schools, parks, safety, community facilities, and public transportation, as well as the scenic waterfront location.

#### *Local challenges*

- Saudi Arabia's climate poses a challenge to KAEC. Summer temperatures can pass 40°C, which means building densely and prioritizing shade is paramount.
- The lack of water will be an on-going challenge in KAEC and the region more broadly. The severe annual flooding also poses a challenge, which the wadi landscape design is intended to mitigate.
- Ensuring that services such as wireless coverage and transport provided by partners and suppliers are affordable to the end customer is an on-going challenge.
- While foreigners are eligible to purchase property in KAEC, it is still difficult to obtain visas to enter the country. This situation is currently being negotiated with the Saudi government.

## 5. Lavasa, India

Lavasa is a private city located in a remote part of western India, 50 miles from Pune and close to the Pune-Mumbai corridor. As India's first post-independence planned hill city, Lavasa follows the principles of new urbanism to prioritize walkable and accessible neighborhoods with a sustainable focus. Seventy percent of the land is designated as natural landscape and 80% of the population will live and work in 20% of the land. The city is being built one section at a time so that potential residents and investors can get a feel for the completed city even while other sections are under construction. Lavasa seeks to become a replicable model that will serve as a template for the construction of other cities of this scale within India. Unlike many other new cities, Lavasa does not aim to appear modern; rather, it seeks to be a smart city that selectively uses technology to reduce waste and increase efficiency while maintaining the charm and human scale of historical cities.



"We marketed the city so people know they are getting something different. That said, you can push the envelope, but you can only push it so far."

**Scot Wrighton, City Manager, Lavasa**

### Key Facts

*Timeframe:* 2004 - after 2020

*Intended population:* 300,000

*Size:* 100 square kilometers

*Estimated cost:* USD \$7 billion at project completion.

*Financing:* Financial partners include the Lavasa Corporation, the Hindustan Construction Company, headed by Ajit Gulabchand, and HOK International Limited. Notably, Lavasa is not just a real estate venture; to date it has invested much more in infrastructure than in traditional real estate development. Over time, as the amount of real estate revenue decreases, earnings will come from operating revenues derived from various city facilities, partial ownership in Lavasa-based service businesses, and amenities in which Lavasa Corporation has invested to varying extents: marina facilities management companies, education, retail, hospitality, restaurants, and industrial laundry.

*Planners / contractors:* HOK created the master plan, and the initial infrastructure was built by Hindustan Construction Company.



*Environmental and sustainability strategies:*

- Seeks to reforest the area as a moist deciduous forest and restore the original ecosystem through mass planting, detailed landscaping, slope greening and hydro-seeding.
- Uses continuous contour trenching and experiments with ways to raise the water table.
- Aims to responsibly manage resources: Lavasa has a Green Building Certification (LEED-NC), an organic waste converter, city-wide vermicomposting, and uses soil biotechnology.
- Through recycling and education programs, Lavasa aims to reduce waste sent to landfills by 95%.

*Industries:* Lavasa seeks to attract non-polluting industries, including higher education, leisure and recreation, tourism, research centers, IT related businesses, and film facilities.

*Energy sources:* At the moment Lavasa is in partnership with MSEB and Tata Power to ensure uninterrupted electricity. The city plans to build facilities to harness wind and solar power as well as miniature hydro-electric dams to reduce its reliance on the grid.

*Precedents:* Lavasa employed urban design strategies from various European towns, including Portofino, Italy, which are dense, walkable and have a distinct, unified identity. The master plan also draws inspiration from traditional patterns of Indian town planning and vernacular forms of building.

*Attractivity:* The features intended to attract residents and businesses to Lavasa include features distinctly lacking in most current Indian cities: abundant access to nature, a cosmopolitan lifestyle, good schools, a functional and clean city, an uninterrupted power supply, high-speed internet, e-governance, drinkable tap water, and a walkable city in which the need for cars is minimal.

*Local challenges:* Although generally seen as a ground-breaking project, Lavasa has faced a myriad of government-related challenges:

- The primary challenge has been operating in a context in which there is little state planning. Working with the state of Maharashtra has presented a series of challenges for the progress of the city as the State's municipal codes do not anticipate a private city like Lavasa.
- Another challenge has been striking a balance between forward thinking social and environmental policies and the need to attract residents whose expectations may not match this vision. For example, one challenge has been incentivizing people of vastly different socio-economic backgrounds to live in close quarters to one another when they would more typically be living physically separate lives in other cities.
- 'Training' the population to live a more sustainable lifestyle is an on-going challenge that requires culturally-appropriate education by the city. For example, separating garbage and recycling waste is a fundamental norm for any society that strives to be sustainable, but is a practice that is not common for many middle and upper class families in India.
- Trying to get the government not to think in a 'one size fits all' way in relation to urban development in India and trying to convince them that innovative urban approaches should be pursued.

## 6. Mohammed VI Green City, Morocco

King Mohammed VI Green City (VVM6) is the first city-building venture of Office Chérifien des Phosphates (OCP), the world's largest exporter of phosphate fertilizers. The city is located between Casablanca and Marrakesh, adjacent to Benguerir, an existing city of 80,000 people, which hosts OCP's second largest operations. The heart of the city will be the University Mohammed VI Polytechnic (UM6P) and the aim is to be a development engine, incubator and research hub centered on universities, and R&D activities. The education and research fields are to both benefit from and help OCP's core business of phosphate fertilizers, and allow more educated Moroccans to participate and expand this area.

VVM6 also seeks to be a 'green city', and is experimenting with solar harvesting, given the abundance of consistent sunshine in Morocco.



### Key Facts

*Date:* 2010 – 2040 (approximate - no set completion date as the plan is to develop as the population grows)

*Intended population:* 120,000

*Size:* 10 square kilometers

*Estimated cost:* USD \$4.15 billion

*Financing strategies:* OCP is the primary driver behind VVM6, although they are looking for other financial partners.

*Planners / contractors:* OCP is the master designer and developer

*Environmental and sustainability strategies:*

- VVM6 is the first major African project engaging in the LEED-ND (LEED for Neighborhood Development) certification process. They seek to use low-energy materials, employ passive energy strategies and use renewable energy, particularly solar. They are taking advantage of their role as a research and education hub to carry out experimental solar projects designed to take advantage of the abundant sunlight hours in Morocco to power the city. VVM6 has developed a set of standards to force future developers to use solar energy.

- Wind patterns were studied in order to orient VVM6's master plan so as to reduce the need for air conditioning.

*Industries:* VVM6's economy will be centered on several universities, which will ideally spawn an R & D community.

*Precedents:* Cambridge, Massachusetts is the template for VVM6 and they hope to recreate the energy and dynamism of the Harvard-MIT-Boston University triangle. While Casablanca Finance City is to be a financial hub for Morocco and the region, VVM6 is being designed as the intellectual research hub.

*Attractivity:* VVM6 is primarily seeking to attract students and professionals involved in the new university and R&D industries. To attract these groups, VVM6 seeks to create desirable conditions, which in the Moroccan context includes superior urban infrastructure and amenities, full public services from day one, connectivity, competitive living prices, and leisure infrastructure. Building on Morocco's world famous traditional cities, architecture and urbanism, VVM6 seeks to capture the heritage, beauty, proportions and climate-appropriate features of Moroccan architecture that have developed over the centuries.

*Local challenges:*

- VVM6 neighbors Benguerir, an 80,000-person working class city with high unemployment, and host to OCP's second largest mining site. Therefore, there are many challenges relating to social responsibility beyond the new city itself as VVM6 seeks to provide increased services to an existing population with a high unemployment rate.
- Financial challenges: Keeping funding steady while pleasing shareholders, developing the necessary financial structure, attracting new investors, and obtaining government support.
- Regulation is another challenge as power is a state monopoly in Morocco. In order to produce green energy, VVM6 is in negotiations with the Moroccan Authority of Renewable Energy to change Moroccan law so that they may generate their own power within the city.

## 7. Putrajaya, Malaysia

Putrajaya was designed to consolidate the government ministries in one location to attain greater efficiency for a growing government. The decision to move out of Kuala Lumpur was taken in order to relieve traffic congestion and to allow the government to convert all government properties into commercial developments. As the new capital, Putrajaya was designed to be the nation's pride, an 'intelligent garden city' that is well-planned, aesthetically pleasing, environmentally friendly, and with many green, open areas and to nurture a sense of Malaysian and Islamic heritage and identity. Putrajaya is connected to Kuala Lumpur and other parts of the country by highway, (ERL) rail and the international airport, located just south of the city. Thirty-seven percent of Putrajaya is dedicated to park and open spaces and there are 200 hectares of man-made wetland and a 400 hectare man-made lake, allowing for the creation of 38 kilometers of waterfront.



"We are trying to introduce some game changers to increase the vibrancy of certain parts of Putrajaya. So what can we do? One of the key strategies is to embark on seed developments such as universities that will inject youth into the population."

**Datuk Azlan Bin Abdul Karim,**  
CEO, Putrajaya Holdings

### Key Facts

*Date started:* 1995

*Current population:* 90,000

*Intended population:* 350,000 (with 500,000 commuters)

*Size of city:* 50 square kilometers

*Estimated cost:* USD \$9 billion

**Financing strategies:** Putrajaya Holdings is a private company created by the government in order to develop the city more quickly. While the main shareholder is Petronas, the Malaysian national oil company, there are also concession holders, land owners and a master developer for Putrajaya. The company had to pick up the bulk of the costs and the government share was restricted to USD \$1 billion of selected infrastructure. In exchange, the government gives Putrajaya Holdings land for commercial development. The government signs an agreement to pay Putrajaya rent for 25 years for the construction of all government buildings. Being backed by their 25-year lease with the government has enabled the company to secure bonds with a triple - A rating. While this system has been used extensively in Putrajaya, more private investment is being sought for a variety of commercial and real estate ventures.

*Planners / contractors:* Putrajaya is a completely local endeavor, planned and executed by local Malaysian planners, consultants, contractors and joint venture partners.

*Environmental and sustainability strategies:*

- Putrajaya has been a leader in Southeast Asia in promoting community gardens for residents to grow their own fruit and vegetables on communal plots and expand locally-sourced food.
- Putrajaya has promoted the "Green City" idea of buildings that use grayscale water management systems, efficient lighting (Energy Commission Building as main model), and Gas District Cooling, all within a 'low carbon cities framework'.
- Putrajaya's wetlands (200 hectares) are a bird breeding ground and a natural filtration system that will absorb pollutants from upstream river water, filter it, such that the water is Class 2B quality (suitable for body contact) upon entering the lake.
- Existing vegetation was used on-site for mulch, while stone quarried during construction was used on-site for roads, dams and some buildings.

*Commercial:* The city is primarily intended to be home to national government ministries, with 3.8 million square meters for government offices and 3.4 million square meters for commercial development. Putrajaya Holdings now seeks to focus on injecting variety and vibrancy into Putrajaya's commercial landscape and rapidly speed up the development of commercial land.

*Precedents:* The designers of Putrajaya looked to a number of precedents for various aesthetic elements. Architecture from various civilizations in the Muslim world (Egypt, Iraq, Central Asia, India, Iran) has been adopted to project a sense of Islamic heritage. Putrajaya's main 4.2 km long axis was inspired by the Champs Elysées in Paris. Other planned capitals were studied including Canberra (Australia), Washington, D.C., and Chandigarh (India).

*Attractivity:* Putrajaya primarily seeks to attract civil servants and their families, students and businesses owners by offering a peaceful, spacious, green and connected city.

*Local challenges:*

- Changing the general perception of Malaysians that Putrajaya is only available to the government and civil servants.
- Partnering with the public, government agencies, businesses and local government on programs and project implementation towards the realization of a 'green' city.
- Predicting technology has proven challenging as Putrajaya invested heavily in fiberoptics at a time when they were very expensive. Investments in technology can be risky as it is easily outdated as technologies have shifted and prices have dropped dramatically in recent years.

## 8. Rawabi, Palestine

Rawabi, meaning 'hills', is located centrally within the West Bank and is Palestine's first planned city. It aims to improve living standards, boost employment and act as a major catalyst of economic growth. It accommodates a variety of lifestyles and is designed for a multi-religious population. Geo-political controversy has risen regarding the development, as Palestinians control the land on which Rawabi will be built, but not the area through which its access road will have to pass.



### Key Facts

*Date started:* 2008

*Intended population:* 40,000

*Size:* 6.3 square kilometers

*Estimated cost:* USD \$1 billion

*Financing strategies:* Rawabi is funded entirely by private investors, including the private Palestinian company Baher Real Estate Investment Company, one-third of which is owned by Massar International, Bashar Masri's company, and two-thirds of which is owned by Qatari Diar Real Estate Company, a sovereign wealth company. Other investors include the Islamic Development Bank (Al-Aqsa fund), Palestine Investment fund, and various commercial banks. Rawabi has launched two programs to target middle class young professionals, a badly neglected market but a profitable one if strategically financed. Rawabi developers worked with banks to introduce mortgages for 25 years (down payment of 15%) and a lease-to-own program (down payment of 7.5%).

*Planners / contractors:* Bayati Real Estate Investment Company, AECOM (Raphael Samach), Palestine National Authority, Bayati Real Estate Investment Company

*Environmental and sustainability strategies:* Rawabi's challenging location on top of a hill with extremely limited access to water means that it is prioritizing various water strategies (e.g., harvesting rain water from roofs and wastewater recycling). Over 10,000 trees have been planted to alter the microclimate and enrich the ecosystem. The city is dense, alleviating the need for car travel within the city and electric car charging stations will encourage the use of renewable energy.

*Industries:* The Rawabi economic growth strategy seeks to attract knowledge economy industries including IT, media, hospitality, pharmaceuticals and health care.

*Energy sources:* When Rawabi is operational, energy sources will include solar and wind technologies, and geothermal heating and cooling.

*Precedents:* Bashar Masri and his colleagues looked to many examples of cities they had traveled to or were familiar with. They looked broadly at a number of international cities in Europe, United States, the Middle East and Israel, specifically the Washington, D.C. area, western Virginia, Columbia, Maryland, Modai'in (Israel), Solidair in Beirut, 6th of October City and other new cities in the Cairo area to examine best practices and the types of social spaces that were successful.

*Attractivity:* Rawabi attempts to address Palestine's massive housing shortage and provide a safe and stable place to live and do business. The central location means that residents can easily access Ramallah and other Palestinian cities. The services, outdoor recreation, pleasant outdoor spaces, walkable city center, childcare facilities, and accessibility to people with special needs are intended to attract people and businesses who cannot find these features in existing Palestinian cities.

*Local challenges:* Rawabi faces a number of challenges, both natural and human. The unique political situation means that the city must engage in complex negotiations for materials, labor and resources.

- While the Palestinian authorities are in support of the project, they have not followed through on the financial support they had initially committed, meaning that Rawabi is entirely privately funded.
- Water is a key challenge as all water sources for the city are controlled by Israel and negotiations for water access continue.
- Like most new cities, attracting requisite businesses can be a challenge and Rawabi is continuing to seek high-tech and other businesses to commit to relocating to Rawabi.
- The balance of people who have purchased homes in Rawabi currently skews towards the upper class, when the goal of the project is to provide housing for the lower and middle classes.
- Due to the geopolitics of the region, the access road to the city is another challenge.
- Creating jobs in IT and services is challenging because there is such limited movement between cities.
- Offsite infrastructure and all public facilities were originally going to be provided by the Palestinian authority, but to date nothing has come through.

## 9. Songdo, South Korea

Songdo International Business District is conceptualized as the ultimate smart and sustainable city and a testing ground for leading-edge technological infrastructure by Cisco Systems; all dimensions of life are integrated: real estate, utilities, transportation, education, health and government. Built on tidal flats, 64 km from Seoul within the Incheon Free Economic Zone (IFEZ), South Korea's first FEZ, and connected to Incheon International Airport by a 12 km bridge, Songdo differentiates itself from previous new towns in and around Seoul, which were public sector developments. One of the key draws of Songdo is its strategic location in the Northeast Asian trading hub, which means residents can reach one-third of the world's population within 3.5 hours.



"We want to crack the code of urbanism, then replicate it. We want to build at least twenty Songdos ourselves: the G20 – Gale 20."

**Stanley Gale,**  
CEO, Gale International,  
in 'Metropolis Now', *Wallpaper*, 2010

### Key Facts

*Date:* 2003-2020

*Intended population:* 252,000 (with 300,000 – 400,000 commuters)

*Size:* 86 square kilometers, business district 9.3 square kilometers

*Estimated cost:* USD \$40 billion

*Financing strategies:* The project is a joint venture between the City of Incheon, Gale International (61%), POSCO E&C (30%), and Morgan Stanley Real Estate (9%). Stanley Gale, the developer, has invested \$100 million of his own money. Asia Development institute, Arup & Partners, and CISCO Services Korea are also key investors.

*Planners / contractors:* The initial primary designer was OMA but is currently Kohn Pedersen Fox (KPF, New York), along with Kunwon architects, Heerim, Yooshin, John Portman & Associates and Gansam Partners.



MVRDV (Netherlands) and REX (U.S.) have also contributed to the planning and design of the city. The master plan of Songdo International Business District was developed by NSIC, which is co-led by Gale International and the Posco Group.

*Environmental and sustainability strategies:* Songdo has been built using a number of strategies designed to minimize its ecological impact by limiting damage to the environment and by achieving energy independence as much as possible.

- Both Korean standards and LEED certification have been employed in all major buildings.
- The central pneumatic waste disposal system eliminates the need for garbage pick-up.
- Low U value windows are used in buildings as well as LED lights, a water-cooled air conditioning system, and solar energy, which reduces energy consumption in each building by 30%.
- There are 25 km of bike paths, extensive walking paths, and 40% green space.
- The city is built around a 'central park' that uses indigenous plants.
- Songdo builds upon the principles of New Urbanism, Smart Growth, Transit Oriented Development and Green Growth.
- Charging stations for electric vehicles are provided throughout the city.

*Industries:* The city will have four universities and will host professional development programming for local corporations. As a designated Free Economic Zone, Songdo seeks to attract banks, multinational and domestic corporations to its international business district.

*Precedents:* The designers of Songdo have drawn inspiration from a number of cities and sought to reproduce what they view as successful urban features, such as New York's Central Park and the canals systems of Venice. These and other social and recreational spaces from around the world are intended to draw upon the wisdom of the past and add complexity and texture to a brand new city.

*Attractivity:* Songdo is designed to respond to the overcrowded and expensive conditions in Seoul by providing a comfortable place for international business people and their families. Policies to attract residents and businesses include:

- Significant economic incentives to attract foreign investment.
- E-government intended to streamline civil services.
- International schools (70% foreign, 30% Korean), including Songdo Global University and foreign medical facilities.
- Incentives for technology companies, such as tax reduction on royalties, tariff reductions, high-speed wireless, and the ability to access personal data throughout the city.
- Tax incentives for dividends of foreign investors, and income tax exemption for non-Koreans.

*Local challenges:*

- While Songdo's proximity to Seoul is an advantage for business and commuters, it also presents a danger of becoming a bedroom community, as has been the fate of many other new towns in the Seoul area. At present, occupancy rates are lower than expected so the city feels rather empty.
- Songdo is a destination for migratory birds, and has faced challenges balancing its sustainable development goals with environmentalists' calls for preserving bird habitats. While the city aims to be 'green', any development alters the natural environment.

## B. Main Themes, Common Visions and Challenges

While the cities presented were vastly different in terms of geography, climate, and social, political and cultural contexts, they shared a surprisingly high number of common goals. These common aims demonstrate that planners, officials, and architects have been influenced by scholarship and evidence-based research on best practices.

At the same time, each city has its own set of challenges linked to its local political and social context, climate, resource scarcity, cultural values and other factors. New cities in general face particular challenges related to the scale, speed, development, and governance of such complex and dynamic entities.

### Sustainability

An overwhelming theme of the cities represented at the Cityquest - KAEC Forum included a sincere desire to become more environmentally sustainable and less reliant on fossil fuels. There is now the widespread realization that investing exclusively in economic growth actually limits long-term economic prospects. There is a general desire to invest in 'green' technology to be sustainable and attract potential investors and residents. As the world's water supply dwindles, managing water resources is also critical, as is providing environments to keep workers and their families well and happy.

While LEED certification has been developed for architecture and, more recently, neighborhoods, no certification exists for creating 'green' cities. The level of complexity in cities makes it challenging to measure environmental sustainability and the vast difference in cities' climates, resources and cultures also makes it challenging to use a single certification system.

### Urban planning and design

The past decades of unmanaged rural-urban migration and population growth have resulted in massive unplanned urban growth, slums and severe overcrowding in many parts of the world. An aspiration shared by the public and private sectors is to plan urban growth in a logical and inclusive way that raises the general standard of living and provides opportunities for the urban poor.

However, in terms of design, training programs for creating new cities do not exist and no guidebook or template has been written for investors, designers and builders. Failures and successes of master-planned cities have not yet been catalogued and analyzed by scholars so there is an ever-present danger of repeating mistakes that other cities have made and of wasting resources in the process of discovering what works and what does not. Additionally, the challenge with such mega-projects is how we can use the same tools we have developed for financing, design, and so on, at a massive scale. While some tools will 'travel' to the city scale, others need to be reimagined and reinvented in innovative ways.

Ultimately, it is a challenge for city builders to create and sell a strong vision for a city, while at the same time maintaining a high degree of flexibility in the master plan to allow rapid responses to market demands and the input of residents.

### Financing strategies

The massive scale of these projects means that conventional financing methods are inadequate. New financing models are required, although there is no one-size-fits all approach, and creative public-private combinations must be shaped by the local context.

Not adequately identifying and addressing risks to financial institutions investing in new cities while promising more efficiency than can be delivered leaves partners exposed. While tension between partners is inevitable, each side of private and public partnerships must align their interests, and share risks and oversight for a partnership to be viable. Particularly in the early stages, risks must be minimized and the expectations of shareholders need to be managed realistically. A difficult balance must also be struck between showing immediate progress for shareholders and achieving long-term goals for the city.

Additionally, public and private entities frequently have divergent and competing interests. While public amenities such as parks, trees, drinking fountains, and social services are difficult to quantify economically and do not maximize profit for shareholders, they are necessary components of any functional and sustainable society. Striking the right balance between the need to make a profit and the need to provide and maintain amenities that offer a high quality of life is an on-going challenge for the builders of new cities.

## Global connectivity and mobility

As the world becomes more globalized and interconnected, expectations about standards for operating businesses, living conditions and global connectivity have merged. The economic benefits derived from greater connectivity are shaping how cities are designed, even from the early conceptual stages.

Additionally, an increasing requirement for the location and design of new cities is mobility: within the city, region, country, and internationally. New cities all focus on access to airports, sea ports, train stations, and provide fast and efficient public transportation, and impose fewer restrictions on movement, such as by easing visa requirements for employees.

There is general agreement among participants that cities should be global, but also have unique local

features that set them apart from other cities and provide a sense of place. This is a difficult balance to strike and challenging to translate into design and urban policies, and to incorporate into the built environment.

Moreover, while all new cities aim to implement best practices, there are vastly different interpretations of what this means and how to measure them. It is difficult to measure 'success,' especially its qualitative aspects. Most cities have no system in place to regularly measure key indicators to gauge progress and shortcomings.

## Mixed-use

There is widespread consensus among city builders and urban visionaries that 'live, work, play' environments are crucial to creating places in which people want to spend time, raise children, open businesses, and invest. The ghostly office parks of the 1980s and 1990s are no longer the template for success and strict zoning is seen to hamper a city's vibrancy, dynamism and creative potential. New cities seek to provide international-standard work facilities (high-speed wireless, office space, mobility and connectivity, etc.), quality housing for a range of residents, and leisure facilities that enrich life and add to residents' happiness and commitment to the city (bike trails, parks, community gardens, arts venues, theatres, eateries, recreational spaces, etc.).

One challenge facing new cities is that they are not only seeking to attract residents, but are also seeking to run the city in a completely different way, which requires behavioral changes in its population. For example, residents need to have the facilities and training to recycle and be 'green' citizens, and what they may desire (multiple cars, large homes, swimming pools, etc.) may not be compatible with the city's sustainability goals.

## Governance

There is the general understanding among new cities that issues of governance today ought to be different from

the past. New cities have the opportunity to be run and managed differently using technology, e-governance and other methods that can increase productivity and transparency while reducing paperwork and red tape.

A number of new cities at the Forum are structured like a corporation and will have a CEO rather than a mayor. Private cities that function as publicly traded corporations enable capital formation that will ideally be more efficient and circumvent the traditional time-intensive methods of building a city. However, privately-run cities present a challenge as the people and entities who largely own a city do not necessarily live there and may have divergent interests from residents.

Moreover, since investors need to turn a profit, many projects provide for the middle and upper classes, which can yield higher profits than low-income housing. Golf courses, jet-skiing, tennis courts, spas, country clubs, and other elite infrastructure fail to address growing income disparity and housing shortages, but instead cater to the tastes and aspirations of those who can afford to live in new cities.

## Technology and cities

New cities have the opportunity to immediately be leaner, more efficient, and less wasteful in terms of time, energy, and materials. More can and must be done with fewer resources than are used by traditional cities. Being 'smart' can mean using traditional / conventional materials or methods or using completely new technology. New technology is not necessarily smarter, however; participants discussed the challenges of technology rapidly becoming dated and the need to design cities that would require the minimum number of interventions and retrofitting to keep pace with technological advance. The tighter integration of systems is seen as essential as even the 'smartest' pieces of technology are useless if they are isolated.

One of the worries about new cities is that they will be out of date before they are even completed. The world is littered with dated remnants of idealistic urban environments that have failed to live up to the promises

of designers and politicians. Given the technological leaps of the past several decades, designing urban infrastructure around technologies that may soon become obsolete or that will radically change in the coming years is a very real danger. There is also a tension between being experimental and being traditional in many cities and confusion around how experimental a city can be while still being responsible to residents and investors. Participants were unsure whether conventional districts should be constructed first with designated experimental zones or if the entire city should be treated as a living laboratory.

## Density

A prominent architect at the Forum pointed out that "without density, there is no sustainability". New cities are not trying to create suburbs, and there is the widespread realization among the builders of new cities that higher densities are required to make a city vibrant, walkable, and economically, socially and environmentally sustainable.

One of the challenges new cities face is in maintaining a convincing narrative to populations and officials that these mega projects are indeed a solution to rapid urbanization. If new cities fail to address this key issue convincingly, the political will for these projects may disintegrate. As they progress, evidence will need to demonstrate that new cities offer a unique and cost-effective solution to help countries outpace sprawl and urbanization.

## Economic diversification and entrepreneur-friendly cities

Another common thread at the Cityquest - KAEC Forum was the desire to attract a range of economic activities so as to diversify the economy. A number of cautionary tales have unfolded over the past decades that have motivated the builders of new cities to seek creative ways to attract a variety of industries. Presenters at the Forum all sought to attract entrepreneurs to their cities with the understanding that entrepreneurs create jobs and build cities.

## C. Lessons Learned

Presenters and discussants at the Cityquest - KAEC Forum revealed a number of concrete strategies that have proven successful. While ideas are always dependent on context to some extent, various approaches to creating new cities emerged as being important irrespective of the cultural or geographical context.

### The necessity of public-private partnerships

Participants discussed the necessity of various types of public-private partnerships and how new financial instruments can be developed in ways that provide the necessary infrastructure and amenities while still allowing profits to be made. Some ideas and suggestions put forth at the Forum about developing public-private partnerships included:

- Creating innovative hybrid public-private entities
- Sharing the cost of baseline infrastructure needed for people to move in
- Carefully allocating the risks so that one side does not carry too much of the burden
- Developing new kinds of public and private investments around energy to tackle endeavors that none of the principal actors could accomplish alone
- Using public and private investment to provide complementary aspects of the city (for example, public investment can focus on constructing more power plants, transit, as well as restrictions such as carbon tax, and mileage limits, while the private sector can pursue the supply side of renewable energy, including photovoltaics, thermal and solar, carbon capture sequestration, defensible intellectual property, engineering, and so on)
- Developing financial models in which people get paid to optimize or improve the existing system

### Fostering a rich entrepreneurial ecosystem

One of the key points made at the Forum was that cities must be places that attract and support entrepreneurial activities at a variety of scales. While there is always lots of buzz and excitement around attracting large businesses, it is small- and medium-sized businesses that employ more people and tend to have more room to expand. Participants at the Forum also emphasized that for long-term economic sustainability, more emphasis should be placed on nurturing local entrepreneurs rather than simply trying to attract foreign talent. A number of characteristics necessary for fostering a rich entrepreneurial ecosystem were put forth by various experts:

- Governance, economic and regulatory environments that attract investment and entrepreneurship
- Clear property rights
- Predictability and transparency in governance (for example, competition should be processed on merit and according to standardized, transparent rules, not through informal channels based on personal connections)
- Process and rule of law, for even well-intentioned laws, are ineffective if not enforced
- Uninterrupted access to electricity
- Adequate transportation infrastructure
- Ease of starting local businesses
- A culture of risk-taking and the acceptance of failure
- An aggressive retention plan for workers
- High level of physical mobility
- Easy movement of goods in and out of the country
- Minimal bottlenecks, which slow the movement of goods and diminish competitiveness
- An embedded and competitive ecosystem with

many start-ups that feed off each other with the city functioning as a hub, providing a platform for people to exchange ideas and engage in collaborations.

## Discover and promote what is unique about the city

One of the lessons learned from several presenters was that cities needed to figure out “what they wanted to be”. In other words, cities need to find their unique niche on a range of scales and in a variety of ways. For example, cities might look to any of the following to help find unique aspects:

- Core economic differentiation
- Strategic location
- Unique industry profile
- Natural features of the area that can be highlighted and celebrated (e.g., wadi, desert environment, rivers and other bodies of water, topography, coast, mangroves, etc.)
- Unique local identity that can be promoted, such as local plants, architecture, urban design, and building materials

## Public engagement

Dialogue with stakeholders is a key component of long-term success. For long-term social sustainability and economic success, it is important to include key stakeholders in discussions about the form the city should take, the amenities and services it will have, and how to handle various challenges as they emerge. Key stakeholders include various levels of government, community groups, business owners, residents, and foreign migrant workers.

As HafenCity Hamburg found, engaging various stakeholders meaningfully is complicated and sometimes contentious especially as the city continues to grow and expand. However, the first ‘pioneer’ residents can play a vital role in guiding development and providing valuable feedback and suggestions that ultimately

humanize the city. Engaging with stakeholders is a long-term investment that can ultimately make the residents and business owners happier and more productive and help the project achieve greater overall success. Problems can be flagged early on and expensive problems or social disturbances can be averted or minimized. As several presenters pointed out, people vote with their feet as to where they would like to go, which can be understood as the market test of how successful new cities are.

Some specific strategies for public engagement include the following:

- Focus groups, online engagement and other outreach strategies with a range of residents to help new cities learn from the views, experiences and aspirations of the first wave of people who move to the city. The early pioneers in a new city can provide invaluable insights about what the city needs to make it attractive and livable for residents and businesses. Working with early residents can guide the development process and policy-making and promote an environment in which residents’ views are valued and aspirations are accommodated.
- The inclusion of a great many architects through public competitions results in a high degree of public engagement and interest, as successfully demonstrated in HafenCity Hamburg. The more people involved, the more the project feels like a place for residents.
- Greater transparency, accountability and connections between residents and city management can be achieved through e-government strategies and other ‘smart’ technologies.
- The New York-based start-up PublicStuff is an example of how citizens can play a role in the smooth functioning of the city by using an app to bring city problems to the attention of the relevant agencies.

## Variety

A variety of residents, businesses, housing types, public areas, and retail spaces is a priority for any city as variety creates a texture and grain that is inclusive, dynamic, and ultimately more socially and economically sustainable. A key problem facing new cities is homogeneity and the perception of being boring. Specific examples of nurturing a community with variety include:

- Reaching out to a variety of people to move to the city: different income groups, socioeconomic classes, and occupations.
- Providing incentives not only for corporations but for people that add life to a city: artists, small business owners, start-ups, etc.
- Involving multiple designers and architects in the creation of the city to avoid creating a homogenous city that looks like an oversized real estate development. While it is easier to hire an architect to design one building and use the same plans again and again, multiple designers can create a very different feel to the city. However, it is also important to set design guidelines that designers must work within (e.g. height restrictions, built-to guidelines, minimum densities) to create a sense of visual cohesion.
- Developing a rich retail ecosystem, which is key to catering to the tastes of different types of people and avoiding the blandness often associated with new cities. In other words, a vibrant city has international chains such as Starbucks, but also supports local 'mom and pop' coffee shops, which provide employment, local flavor, various levels of affordability, and expands the number of residents invested in the city. The infrastructure needed to nurture a rich retail ecosystem includes a varied and fine-grained retail landscape: larger high-end spaces, mid-sized

spaces and micro-spaces for very small, but essential businesses (dry cleaners, ice cream shops, beauty salons, barber shops, bakeries, etc.). These are necessary to make a city to feel vibrant and 'authentic'. While micro-spaces might not pay the highest rents, they are integral to the life and pulse of a city.

- Encouraging the growth of universities, which can provide a young, dynamic population that will create and support varied types of businesses.

## Drawing on the local

Up until the 1980s and 1990s, there was a fetishization of anything 'western'. In recent years, there has been a growing backlash against 'placeless' and bland cities that appear interchangeable. As scholars have become critical of the homogenization of cities and how they have all grown alike, more designers and leaders are paying close attention to the identity of cities and integrating local elements where possible. Prioritizing local elements can enhance residents' sense of place, emotional attachment and commitment to a city, and can play a key role in ecological, social and economic sustainability.

Examples of strategies to enhance a city's identity include the following:

- Affirm uniqueness of a place. One of the greatest assets of a city is how memorable it is. Iconic buildings often fail as they can be spectacles that look generic and unconnected to the local environment.
- Local materials, where possible, are not only sustainable, but add a distinct character to a city that distinguishes it from others.
- Local knowledge in terms of weather, floods, local history that should be respected and integrated into the design of the city. This can enhance sustainability and the resilience of the city.

- Local architecture and urbanism developed over the centuries should respond to the climate, religious and cultural sensibilities, local aesthetic preferences, etc.
- Local identity and history should be integrated into new cities as connections to the past that are psychologically and emotionally valuable for residents. Renowned architects at the Forum argued that all traces of history, no matter how minor, should be kept in order to enrich a new city and lend it depth and layers. In the context of Dubai, one presenter argued that worker housing, while not architecturally significant, should be preserved as it is evidence of an important part of Dubai's social and architectural history and provides a sense of time and authenticity that is lacking in new cities. Similarly, another architect at the Forum emphasized that a region's history, philosophy, and religion should be integrated into the shape and fabric of the cities.
- Local vegetation is increasingly being used by progressive designers of new cities. Plants that have evolved to thrive in a particular environment are healthier and require far less maintenance than imported plants. Local plants play a vital role in providing food and shelter for local wildlife, help support a healthy ecosystem, and can mitigate flooding. Local vegetation also provides a sense of unique identity to a city and cultivates local pride in residents.
- Local terrain, landscapes, natural features, and watersheds are increasingly prioritized to enhance identity, sustainability and a unique sense of place.

## People over cars

We have learned many lessons over the decades, primarily from cities such as Los Angeles, which found that building more roads resulted in more cars and an increasingly hostile pedestrian environment. All cities represented at the Cityquest - KAEC Forum prioritized the creation of cities for people rather than for cars and a variety of specific strategies were discussed.

- Investing early in public transportation to move residents around the city and between cities. If public transportation is clean, efficient and affordable, all socio-economic groups can be encouraged to take it.
- Educating the population about the merits of reducing car travel is key. Some of the cities marketed their city as a different kind of place that demands different resident behaviors in exchange for living in a unique and dynamic place.
- Clustering communities around amenities such as shops, community centers, and public spaces cuts down on car travel and encourages a greater number of trips outside the home to be made by bicycle or on foot.

## A flexible master plan

Master plans are necessary, but can lock a city into a direction that is not necessarily the most dynamic or successful. Numerous attendees of the Cityquest - KAEC Forum explained the need for the master plan to function as a guide that should be re-evaluated and updated from time to time to respond to market demands and social needs that arise. Being locked into a master plan that is set in stone can burden a city with outdated technology and ideas, and hinder the ability to take advantage of opportunities as they arise.



## Back to basics vs. innovation

Attracting residents and businesses does not necessarily require technological innovations, but basic tried-and-true fundamentals:

- Good schools at all levels
- Jobs and economic opportunities for a range of people
- Neighborhoods with parks, community centers, and other amenities
- A responsive and transparent governing body
- A sense of connectedness and community

Some presenters argue that future great cities will essentially look the same (“don’t fix what’s not broken”), but will be managed and run differently. Others argued that cities designed around integrating digital infrastructure and other new technologies and according to pedestrian-centric values will be radically different from existing cities.

## Heart and soul

Presenters and participants agreed that while cities can have excellent infrastructure, that is not necessarily enough to attract people, retain them and convince them to put down roots. A city also needs a soul. This is one of the trickiest aspects to create from scratch and requires that residents have the power to shape the city, with technologies functioning only in the role of supporting actors. A city’s culture and vibrancy should ideally align with the rest of the country to avoid political problems.

## The value of history

An architect at the Forum recommends that in designing new cities, “don’t destroy anything of the past if it’s not strictly necessary, even if you think now that that past is not impressive.” He argues that while all new cities lack authenticity, there are creative ways to integrate historical elements, including maintaining some worker housing, that can make a new city more interesting and

appealing while adding some depth and complexity to the urban landscape.

## Attracting people and businesses

The complex combination of factors that attract people and businesses include both tangibles (city features, facilities, amenities) and intangibles (financial incentives, safety, beauty, identity). Strategies to attract talent include:

- Incentives (e.g., free office space for start-ups, tax breaks, competitive salaries).
- Creating places to attract talent – while a company can pay more to attract talent, this is not enough, nor is it sustainable. The city needs to be a place people want to live and bring their families.
- Supporting the aspirations of the people – the city must be a place where people are hopeful that they can carve out a living, that a working class person, a university graduate, or a wealthy citizen can earn a satisfactory living or become entrepreneurs.
- Ensuring ease of movement (e.g., trouble-free visa process).

## D. Gaps in the Discussion

In a two-day conference, it is impossible to cover all topics thoroughly and there are several themes that could be further explored in future Cityquest gatherings.

### Environmental sustainability

While all new cities at the Forum mentioned sustainability as a key priority, many questions remain on this complicated topic as there is currently no way to measure sustainability for such massive projects.

- The need for clear metrics: new and existing cities often do not have clear metrics by which they can measure sustainability and the productivity of green technology. Future discussions could focus in more detail on the tools cities use to measure sustainability. Dr. John Robinson from the Center for Interactive Research on Sustainability and Next Generation Sustainability at the University of British Columbia has pointed out that there are three numbers that sustainability audits come up with: the predicted number, the recorded number and the actual number. This comment reveals the deep challenges of accurately measuring sustainability in individual buildings and particularly at the scale of cities.
- Shared vs. city-specific strategies: what are general strategies that could be implemented in all new cities? What are strategies that are place-specific? Given the highly varied local contexts of new cities, can standard sustainability benchmarks even be followed?
- The importance of local climate: Are there strategies for particular climates that could benefit from focused sub-group discussions? For example, sub-groups of new desert cities and tropical cities may benefit from sharing strategies, research, policies, successes and failures.
- Sustainability beyond energy management: discussion at the Forum tended to focus on energy strategies with little discussion of more holistic approaches to sustainability, including harm reduction, mitigation, policy changes to limit consumption, and regenerative sustainability.
- Assessing the use of LEED certification: discussion at future events about the many problems associated with LEED certification would be valuable and constructive. This discussion would ideally include researchers and sustainability experts in dialogue with designers, investors, and policy makers. What are some strengths and limitations of such international certification programs? How can we draw on the strengths and good intentions of LEED certification while improving upon it?
- Setting judicious bounds on the free market: many goals of sustainability come from a place of concern about our impact on the environment and an acknowledgement that the way we live now must change, there is an inherent conflict with the principles of an entirely free market. For example, what sorts of policies can a new city develop to limit consumer waste produced in the city (e.g. banning water bottles and other products with excessive or wasteful packaging, developing by-laws to limit energy and water usage in each business or household) without hindering the markets? Economists agree that taxing and limiting certain actions reduce negative

externalities and promote maximal welfare through the free market, but where these bounds lie is less clear.

## Social and cultural sustainability

While there was broad acknowledgement that connecting with the past, providing cultural continuity and promoting a sense of identity were priorities for new cities, there was little discussion about concrete strategies for doing so. Social and cultural sustainability are intimately linked to economic sustainability and the ability to attract and retain residents and could therefore be examined in greater detail as new cities develop. Future gatherings of decision makers and designers could include more specific discussion about:

- How to encourage spaces and architecture within the city that respect traditional recreational activity and cultural expression.
- Strategies for early residents to be active participants in developing cultural groups, cultural infrastructure, and active shapers of the city.
- How to set aesthetic guidelines that both encourage flexibility and provide a sense of continuity and identity.

## Failures

Creating new cities is a grand experiment for which there is no guide book. While each city has experienced and will continue to experience many successes and failures, there has been relatively little in-depth discussion about the strategies, spaces and projects that did not work.

A detailed examination of failures and obstacles associated with financing models, bottlenecks, corruption, social policies, community engagement strategies, densities, public spaces and so on would be productive to explore in a panel at a future event. Turning a critical eye to failures can be just as instructive as examining successes, particularly with regards to new cities in their earlier stages. Examining failures

can also help cities avoid repeating mistakes, devise strategies for recovering from mistakes, and learn how to navigate out of current problems.

## City governance

As the populations of new cities grow, issues of governance will become more urgent. With many new cities operated by a corporation rather than a mayor and city council, many questions emerge that could be explored in future gatherings.

- If the city needs to earn a profit for non-resident shareholders, how can residents be assured that non-profitable services (parks, water fountains, domestic abuse agencies, etc.) will be provided and protected in the long term?
- What voice will residents have over the provision of facilities and public spaces and the general shaping of the city? What are strategies city officials can use to encourage sustained dialogue with residents? What if the views of residents are vastly different from those of the non-resident shareholders?
- Inevitably, problems found in any city will emerge in new cities, including unemployment, crime, mental illness, and homelessness. How will new cities deal with these problems? How can we plan in advance to mitigate such problems?

## Including the urban poor

Several participants pointed out that new cities seem to be the privilege of wealthy, oil-producing nations or nations that already have strong economies or a critical mass of wealthy citizens. Questions related to new cities and poorer nations that emerged include:

- Do new cities translate to the (sub-Saharan) African context?
- Are new cities inherently an economic strategy for the already wealthy?

- What other urbanization strategies can be employed without such massive public-private investments?
- Is there evidence that new cities are able to address extreme poverty, or are they geared towards the middle and upper classes?
- Will new cities exacerbate the growing divisions between rich and poor found around the world? What social innovations can new cities introduce to better handle social and economic inequities?

The suspicion that new cities will perpetuate new extremes of social and economic divisions will be critical to address at future events. Including experts and activists on urban poverty in future discussions is a long-term investment that will strengthen cities and reassure critics that new cities are not just elite real estate projects. Facilitating dialogue between advocates for the urban poor, investors, policy-makers and designers would also be an opportunity to devise innovative collaborative solutions. As the largest and fastest-growing demographic of urban residents, the urban poor must be a key constituent of any urban mega-project for long-term economic, social and political stability.

## Including researchers

The Cityquest - KAEC Forum successfully brought key people into a dialogue about these issues, and more such gatherings are needed. A sustained engagement with the academic community, which can share insights, a historical perspective and evidence-based research, will help new cities to avoid costly mistakes and ultimately create more successful, smart and sustainable cities.

## Concluding Remarks

New cities hold the unprecedented potential to address the urgent urban problems of our time and to function as laboratories for leading-edge ideas and technologies. Understandably, there are lingering concerns that many new cities may fail to attract business, to attract long-term residents, and to foster an entrepreneurial environment that creates jobs and equitably generates wealth.

It is encouraging then to see Vancouver, Calgary, and Melbourne featured prominently on the list of the world's most livable cities, as all three are relatively recent cities that had no international standing until recent decades. In fact, many of today's great cities were built within the past 100 years, but have developed into socially and economically vibrant and beautiful places.

The possible directions for new cities are endless. As their story unfolds to a global audience in the decades to come, the very concept of new cities will attract a growing amount of attention and scrutiny. There will inevitably be failures – projects that fall short of expectations, others that get only partially built, and still others that are never used as intended. The unprecedented scale and complexity of new cities means that the risks are immense, matched only by the potential for great social, economic and environmental rewards. If the best ideas from designers, policy-makers, entrepreneurs and scholars are integrated into new cities, if residents play a prominent role in shaping new cities, and if lessons learned from the past are employed to avoid major mistakes, it is possible that the current generation of new cities being created could serve as templates in the years to come. In a very tangible sense, we are building today the next chapter of our future.

## References and Further Reading

Arlidge, J. (2010) Metropolis Now, Wallpaper (October).

Arnstein Sherry R. (1969) A ladder of citizen participation, *Journal of the American Institute of Planners*, 35 (4): 216-224.

Beatley, T. (1995). Planning and sustainability: The elements of a new (improved?) paradigm. *Journal of Planning Literature*, 9(4): 383-395.

Bradham, Darren C. (2009) Crowdsourcing the Public Participation process for planning Projects, *Planning Theory* 8: 242.

Dale, A., & Robinson, J. B. (Eds.). (2011). *Achieving Sustainable Development*. Vancouver: UBC Press.

Fuerst, F., & McAllister, P. (2011). Green noise or green value? Measuring the effects of environmental certification on office values. *Real Estate Economics*, 39(1): 45-69.

Gehl, Jan. (2010) *Cities for People*. Washington / London: Island Press.

Gehl, Jan. (2011) *Life Between Buildings: Using Public Space*. Washington / London: Island Press.

Hall, Peter. (2014) *Good Cities, Better Lives: How Europe Discovered the Lost Art of Urbanism*. Milton Park, UK: Routledge. 96-105

Innes, Judith E. (1996) Planning Through Consensus Building: A New View of the Comprehensive Planning Ideal, *Journal of the American Planning Association*, 62 (4): 460-472.

Kasarda, John D. And Lindsay, Greg. (2011) *Aerotropolis: The Way We'll Live Next*. New York: Farrar, Straus and Giroux.

Katz, P., Scully, V. J., & Bressi, T. W. (1994). *The New Urbanism: Toward an Architecture of Community* (Vol. 10). New York: McGraw-Hill.

Keeton, Rachel. (2011) *Rising in the East: Contemporary New Towns in Asia*. Amsterdam: SUN.

Kenworthy, Jeffrey R. (2006) The eco-city: Ten key transport and planning dimensions for sustainable city development, *Environment and Urbanization* 18 (1): 67-85.

Navarro, M. (2009). Some buildings not living up to green label. *New York Times*, 30.

Newman, Peter, and Jeffrey Kenworthy. (1999) *Sustainability and Cities: Overcoming Automobile Dependence*. London: Island Press.

Newsham, G. R.; Mancini, S. and Birt, B. (2009) Do LEED-certified buildings save energy? Yes, but... *Energy and Buildings* 41 (8): 897-905.

Orueta, Fernando Diaz and Fainstein, Susan S. (2008) The new mega-projects: Genesis and impacts. *International Journal of Urban and Regional Research* 32 (4): 759-767.

Retzlaff, Rebecca C. (2009) The use of LEED in planning and development regulation: An exploratory analysis, *Journal of Planning Education and Research* 29 (1): 67-77.

Robinson, J. (2004). Squaring the circle? Some thoughts on the idea of sustainable development. *Ecological Economics*, 48(4): 369-384.

Scott, James C. (1998) *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.

Swart, R. J., Raskin, P., & Robinson, J. (2004). The problem of the future: sustainability science and scenario analysis. *Global Environmental Change*, 14(2): 137-146.

Vale, Lawrence. (2008) *Architecture, Power, and National Identity*. London and New York: Routledge.

## Internet References

MIT Center for Advanced Urbanism <http://cau.mit.edu/>

Siemens Green City Index <http://www.siemens.com/entry/cc/en/greencityindex.htm>

U.S. Green Building Council – LEED for Neighborhood Development <http://www.usgbc.org/neighborhoods>

## About King Abdullah Economic City (KAEC)



King Abdullah Economic City is realizing its vision to become a great enabler of socio-economic development in the Kingdom of Saudi Arabia. It provides investors from all over the world with unique business opportunities while working towards securing the future of Saudi Arabia's youth by creating new skilled job opportunities and total housing solutions.

King Abdullah Economic City is the founder of Cityquest – KAEC Forum and the program host. Strategically located on the Red Sea for maximum impact, 100 kilometers north of Jeddah, KAEC is destined to become one of the most important cities in the Middle East region serving global trade. KAEC strengths and the unique business environment represent the future ambition of the whole of Saudi Arabia. King Abdullah Economic City is a prime example of the country's commitment to private-public partnership development. The city covers 181 million square meters of land and is being developed into a fully integrated city. It consists of the Industrial Valley, King Abdullah Port, the Coastal Communities, the Downtown and Haramain Railway Station.

For more information about KAEC, please visit:

[www.kaec.net](http://www.kaec.net)

## About New Cities Foundation



The New Cities Foundation is a leading global non-profit organization, with a vision to build more inclusive, dynamic and creative cities benefiting people and society. Its mission is to incubate, promote and scale urban innovations through collaborative partnerships between government, business, academia and civil society.

The New Cities Foundation hosts a number of leadership events on the most pressing urban issues, including its flagship event, the New Cities Summit, which takes place this year in Dallas, Texas, on June 17 – 19, 2014 ([www.newcityssummit2014.org](http://www.newcityssummit2014.org)). The Foundation also hosts smaller leadership events worldwide, such as Cityquest - KAEC Forum, a high level event focusing on the conception and building of new cities around the world ([www.cityquest.net](http://www.cityquest.net))

The Foundation's applied research wing, the Urban (co)LAB, manages a number of projects including Task Forces, thought leadership activities and competitions. The Urban (co)LAB recently completed two Task Forces on Urban E-health in Rio de Janeiro and on Connected Commuting in San Jose, California. The Urban (co)LAB also manages the annual AppMyCity! Prize for the world's best urban mobile app, and seeks out the most talented urban innovators for the WhatWorks series of talks hosted at the New Cities Summit.

An independent, non-profit organization, the New Cities Foundation was created in 2010 and is financed by its members and partners. Overall, its members include some of the most forward-thinking companies, universities, cities and city organizations from around the world. The New Cities Foundation's Founding Members are Cisco and Ericsson. The Foundation is based in Geneva and its head office is in Paris.

For more information about the New Cities Foundation, please visit:

[www.newcitiesfoundation.org](http://www.newcitiesfoundation.org)

Facebook: [/NewCitiesFoundation](https://www.facebook.com/NewCitiesFoundation)

Twitter: [@newcitiesfound](https://twitter.com/newcitiesfound)



[www.newcitiesfoundation.org](http://www.newcitiesfoundation.org)



[www.cityquest.net](http://www.cityquest.net)



[www.kaec.net](http://www.kaec.net)