

Greater Bay Area Young Leaders Programme 2019

# INNOVATION MODEL TO DRIVE QUALITY OF LIFE IN THE GREATER BAY AREA

Executive Summary





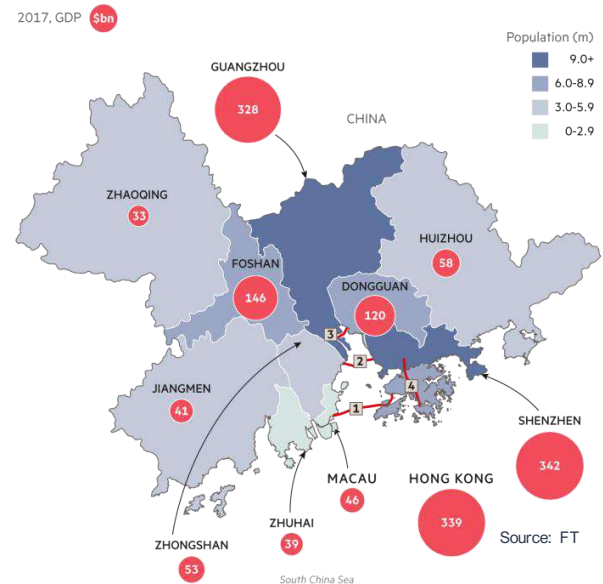


## THE GREATER BAY AREA

The “Guangdong - Hong Kong - Macao Greater Bay Area” (GBA) – covering 56,000 square kilometres, 69 million people and US\$1.5 trillion in GDP – presents countless new economic opportunities.

The GBA sits within the Pearl River Delta Economic Zone, a region once described as the “Factory of the World”. The goal is for the GBA to become an economic and technological powerhouse that would rival other bay areas such as San Francisco and Tokyo.

Years of unbalanced economic growth, however, has resulted in unsustainable demands on resources and deep environmental and social costs. Increased demand for high-quality living and unfettered development will add pressure to already constrained resources in and beyond the region.



## ECOLOGICAL CIVILISATION

The concept of “Ecological Civilisation” was identified as a national priority by the Chinese government in 2012, and the GBA in particular has been designated as a pilot zone for the concept.

Ecological Civilisation is a new development approach that uses the latest technological innovations, economic instruments and planning frameworks to provide a high quality of life while accounting for externalities and resource constraints.

As a relevant, timely and practical approach, it can provide the basis for a development model that unites the 11 cities in the GBA.

Establishing a common definition for Ecological Civilisation, and connecting it to meaningful innovations and technological applications, will help achieve the vast potential of the GBA, and position the region as a role model for China and the rest of the world.

## INNOVATION DRIVEN BY VISION

Many attempts to drive innovation focus on *business* relationships and painpoints between stakeholders that would allow goods and services to be provided at a lower cost or with greater efficiency.

Driven primarily by commercial interests, such innovation often ignores wider social or environmental implications. Many tech startups rely on business models that generate significant external costs borne by society and the environment.

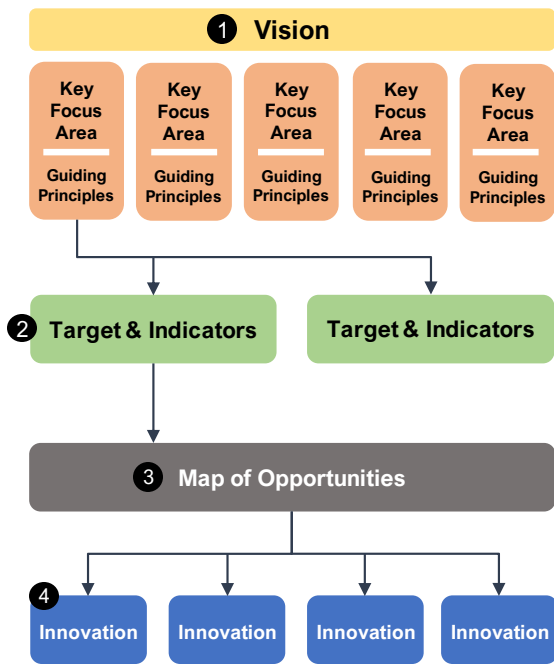
The model presented in this report approaches the question of innovation differently. It starts with a strong and unifying vision, and then identifies opportunities for innovation and technology to achieve it.

This innovation model offers a practical framework for any government, company or organisation to use in devising strategies for innovation.

Using the concept of “Ecological Civilisation” as an anchor, it can inspire entrepreneurs and innovators in Asia and beyond to respond to the pressing challenges facing society.



# THE INNOVATION MODEL



- 1 The process starts with developing a single **Vision** that designates a clear goal for the GBA. This vision is elaborated through **Guiding Principles** in five **Key Focus Areas**: Connectivity, Talent and Livelihood, Built Environment, Environment and Resources, and Food and Wellbeing.
- 2 A set of **Targets** is then developed to convert these guiding principles into actionable objectives, each backed by a series of measurable **Indicators**. These targets and indicators are used to inspire new innovations for the GBA.
- 3 A target is then chosen to develop into a **Map of Opportunities** that illustrates the relationships and painpoints between key stakeholders. This map shows particular areas where innovation can play a major role in achieving the vision for the GBA.
- 4 Finally, painpoints highlighted in the Map of Opportunities are used to inspire social, policy or technological **Innovations** that would in turn support achievement of the targets.

## THE GBA VISION

*The GBA will be a pioneer for a people-centric eco-civilisation megapolis, achieved by adopting innovations in technology and the social sciences through multi-sectoral cooperation across the region.*

## KEY FOCUS AREAS & TARGETS

Further details on the guiding principles, targets, indicators, map of opportunities and innovations can be found in the [full report](#).



### Connectivity

#### Infrastructure

1. GBA high-speed rail and light rail networks to connect urban and rural areas
2. Reduce vehicle emissions

#### GBA Identity

1. GBA identity card for access to all GBA cities' public services
2. GBA sports leagues
3. World-class GBA film hub

#### Flow of Everything

1. Free-trade zone expansion
2. Secure exchange of personal information



### Talent & Livelihoods

#### Education System

1. Workforce to have access to vocational and professional training and certification

#### Talent Cultivation

1. Cross-recognition of qualifications
2. Access to STEM education
3. Access to Chinese and English bi-lingual education

#### Quality of Life

1. High standard of living
2. Workplace health and safety

## Built Environment

### Housing

1. Maintain public housing supply
2. Minimum living space

### Construction

1. Reduce and recycle construction waste

### Urban Planning

1. Common GBA building standard
2. Community proximity to public services

## Environment & Resources

### Pollution

1. Improve ambient and indoor air-quality
2. Improve water quality
3. Reduce arable land contamination

### Natural Environment

1. Increase nature reserves
2. Increase population of endangered species

### Resources

1. Reduce energy consumption
2. Reduce industrial and municipal waste
3. Eliminate single-use plastics
4. Increase recycle rate

### Carbon Emissions

1. Reduce carbon emissions

## Food & Wellbeing

### Food and Water Quality

1. Access to food origination information
2. Reduce food waste
3. Access to potable water and sanitation

### Healthcare

1. Reduced waiting times
2. Affordability of care
3. Common medical records database

### Arts and Culture

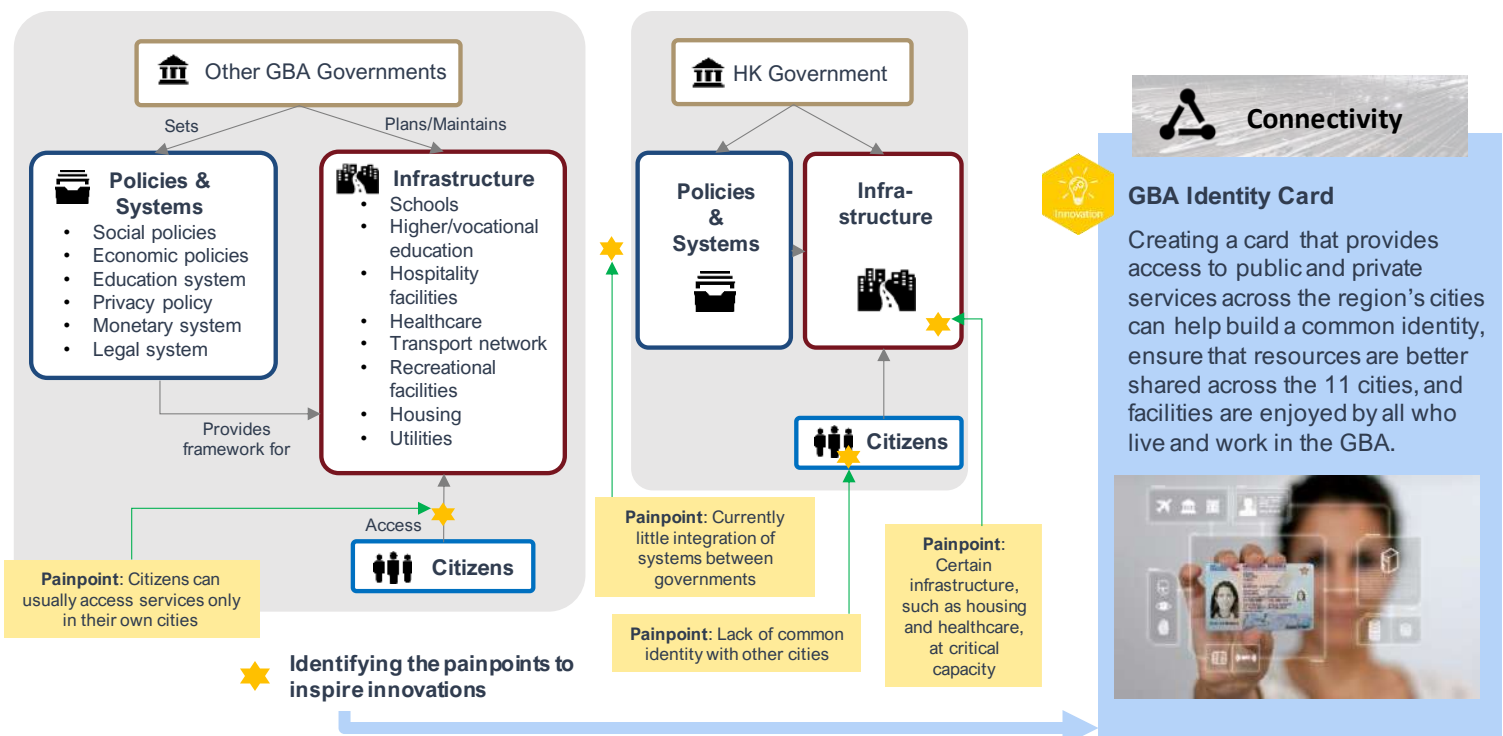
1. Increase GDP contribution of creative industries

### Recreation

1. Access to recreational spaces

## INNOVATIONS WITH A PURPOSE

One target from each focus area was selected to illustrate the potential of the model to inspire innovation ideas. The following is an example developed for “Connectivity”, driven by the target to create a GBA Identity Card that provides access to public and private services across the 11 cities.







## Talent & Livelihoods

### Digital Talent Platform

A platform that facilitates the matching of job-seekers with employers, and apprentices with mentors, through an AI-assisted digital database that stores an individual's qualifications and work experience, and generates a verified CV.



## Built Environment

### Waste Footprint Monitoring System

A system that measures waste generated at construction sites and rewards contractors who minimise their waste. It encourages Integrated Design Processes (IDP) and Building Information Modelling (BIM) to reduce design flaws and redundancies.



## Environment & Resources

### Carbon-Smart System

A real-time monitoring system in buildings, transport and equipment that uses Internet of Things (IoT) to measure carbon emissions and offer recommendations to users. A reward scheme is integrated into the system to offer incentives for reducing emissions.



## Food & Wellbeing

### Food Supply Chain Traceability Platform

This platform uses technology such as blockchain to track the origins and processes of food. Consumers and regulators are able to check this information on their mobile devices.



## A MODEL FOR THE FUTURE

The innovation model for the GBA proposes a fresh approach to understanding the role of innovation and technology in addressing quality-of-life issues.

For the GBA, establishing an “Ecological Civilisation” – supporting and expanding a high-standard of living while staying within important environmental boundaries and resource constraints – can be a common goal for all 11 cities, and would position it as a model for other urban economies across China, the Asia-Pacific and beyond.





The **Global Institute For Tomorrow (GIFT)** is an independent pan-Asian think tank providing content-rich and intellectually challenging executive education from an Asian worldview.

The **Young Leaders Programme (YLP)** is GIFT's experiential leadership programme designed for government officials and managers from leading global organisations to think critically about the drivers of change in the 21st century and develop new business models and innovations that address the defining challenges of our time.

In this inaugural GBA YLP, participants convened in Hong Kong and Guangdong in two modules over 20-25 May and 9-14 June to undertake classroom discussions, site visits, fieldwork, and planning sessions. The highlights from this innovation model were presented at a public forum at Cyberport in Hong Kong on 14 June to a range of government, business, and community stakeholders.

GIFT would like to thank **Hong Kong Science and Technology Parks**, and everyone involved who have put in their best efforts to make this possible.

You can download the full report [here](#).



# Tomorrow Matters.

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