Greater Bay Area Young Leaders Programme 2019

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

Executive Summary
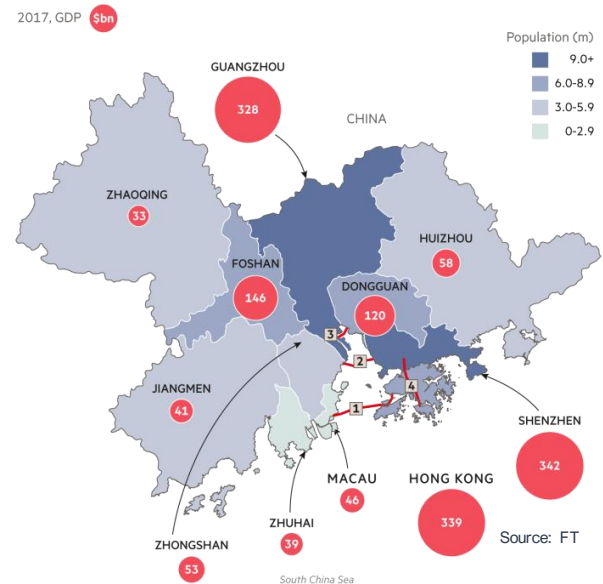
GIFT GLOBAL INSTITUTE FOR TOMORROW.

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.

2017, GDP $bn

Population (m)
- 9.0+
- 6.0-8.9
- 3.0-5.9
- 0-2.9

GUANGZHOU 328
CHINA
ZHAOQING 33
HUIZHOU 58
FOSHAN 146
DONGGUAN 120
JIANGMEN 41
SHENZHEN 342
MACAU 46
HONG KONG 339
ZHUHAI 39
ZHONGSHAN 53
Source: FT
South China Sea

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.
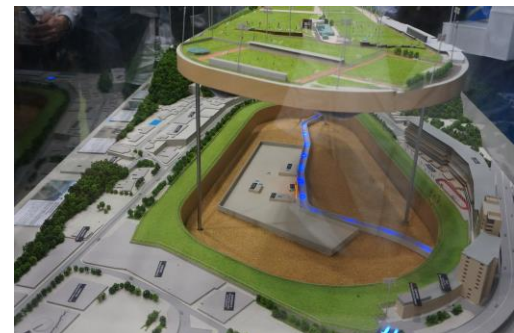

INNOVATION DRIVEN BY VISION

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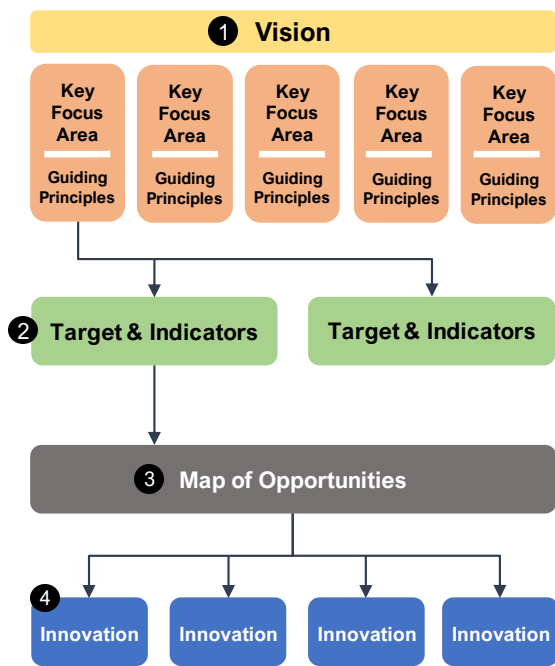
The model presented in this report approaches the question of innovation differently. It starts with a strong and unifying vision, and then identifies opportunities for innovation and technology to achieve it.

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 Vision

Key Focus Area	Key Focus Area	Key Focus Area	Key Focus Area	Key Focus Area
Guiding Principles	Guiding Principles	Guiding Principles	Guiding Principles	Guiding Principles

② Target & Indicators | **Target & Indicators**

③ Map of Opportunities

④ Innovation | Innovation | Innovation | Innovation

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
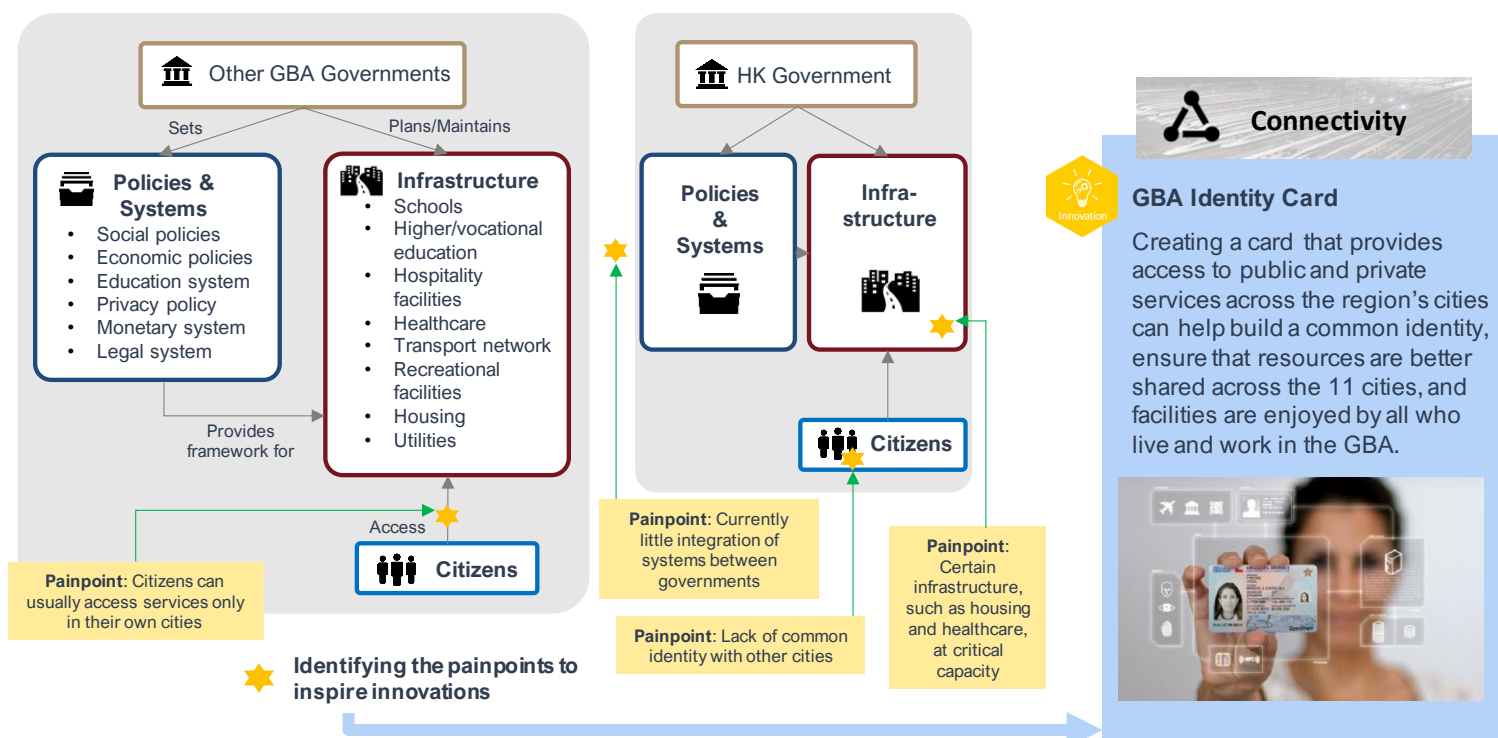1. Increase GDP contribution of creative industries

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.

Other GBA Governments
— Sets → Policies & Systems
— Plans/Maintains → Infrastructure

Policies & Systems
- Social policies
- Economic policies
- Education system
- Privacy policy
- Monetary system
- Legal system

Provides framework for →

Infrastructure
- Schools
- Higher/vocational education
- Hospitality facilities
- Healthcare
- Transport network
- Recreational facilities
- Housing
- Utilities

Access → **Citizens**

Painpoint: Citizens can usually access services only in their own cities

Identifying the painpoints to inspire innovations

HK Government
Policies & Systems
Infra-structure
Citizens

Painpoint: Currently little integration of systems between governments

Painpoint: Lack of common identity with other cities

Painpoint: Certain infrastructure, such as housing and healthcare, at critical capacity

Connectivity

GBA Identity Card

Creating a card that provides access to public and private services across the region's cities can help build a common identity, ensure that resources are better shared across the 11 cities, and facilities are enjoyed by all who live and work in the GBA.

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.
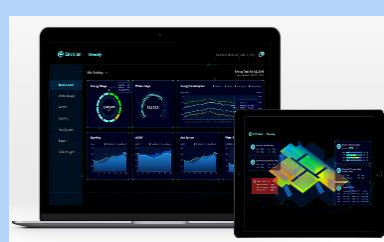
Food & Wellbeing

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.

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GREATER BAY AREA YOUNG LEADERS PROGRAMME
粵港澳大灣區青年領袖計劃
Hong Kong and Guangdong 2019

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.

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