

城設設計集團

**SRT
DESIGN
GROUP**

Dr. Edison ZHANG

Director, SRT Design Group

National Committee Member, China GBC

Lecturer, CUHK

LEED AP, BREEAM AP, BEAM Pro, Carbon Auditor

Establishment of Humanity Aspect of The Evaluation Standard for Green and Ecological Urban Districts in China

Comparison of LEED Neighborhood Development,
BREEAM Community, CASBEE-Cities and DGNB Urban Districts

RESEARCH BACKGROUND

THE NEED FOR SUSTAINABLE URBAN DESIGN AND PLANNING



**Urbanization
Rate Exceed 50%
in China**

**The National
Urbanization
Plan 2014-2020**

**The Building of
Ecological
Civilization**

in an effort to steer the country's urbanization onto a **human-oriented & environmentally friendly** path

one of the goals is to promote the construction of "**Green and Eco-Urban District**"

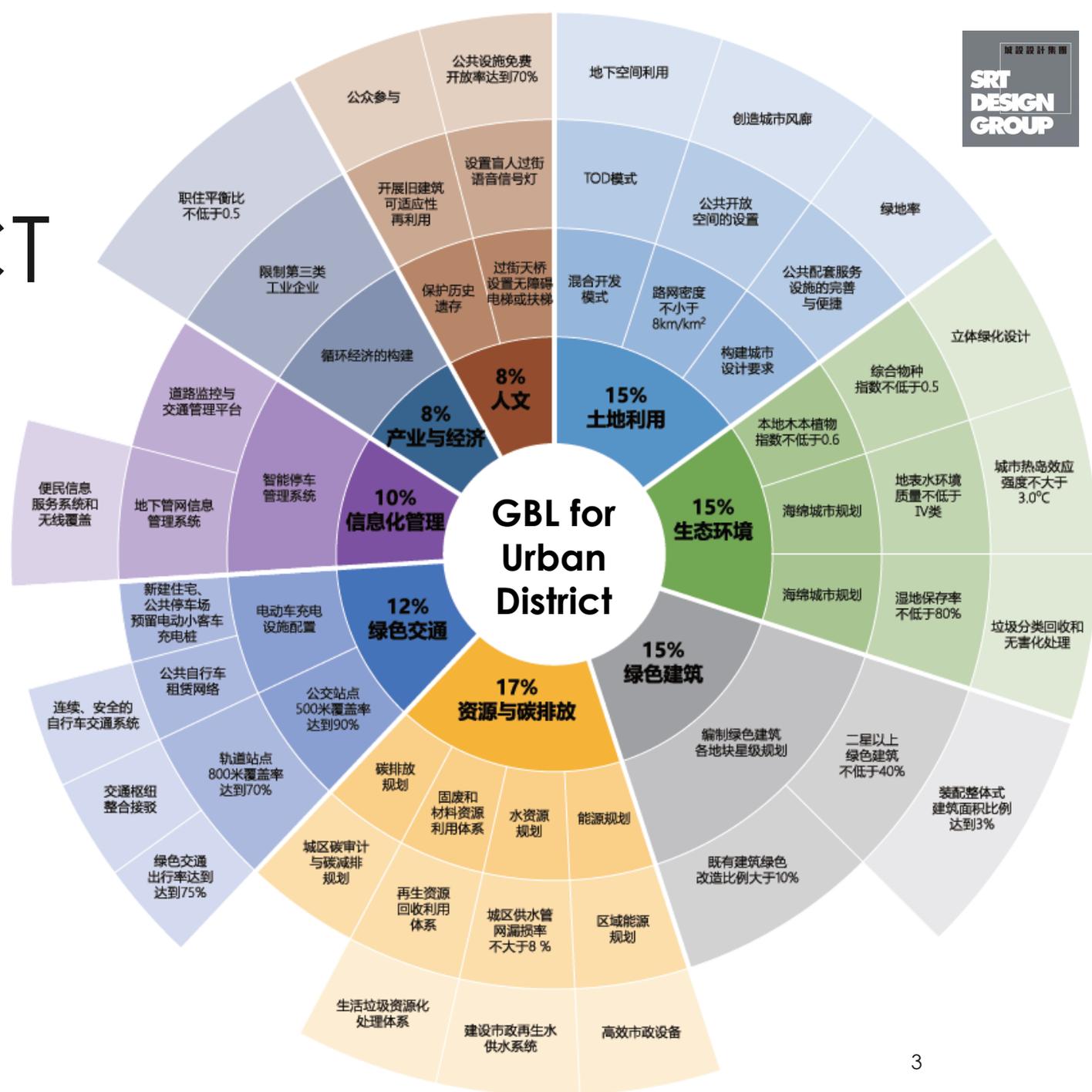
This study is part of the research outcomes, focusing on **humanity, humanism and social sustainability issues.**

GBL FOR URBAN DISTRICT

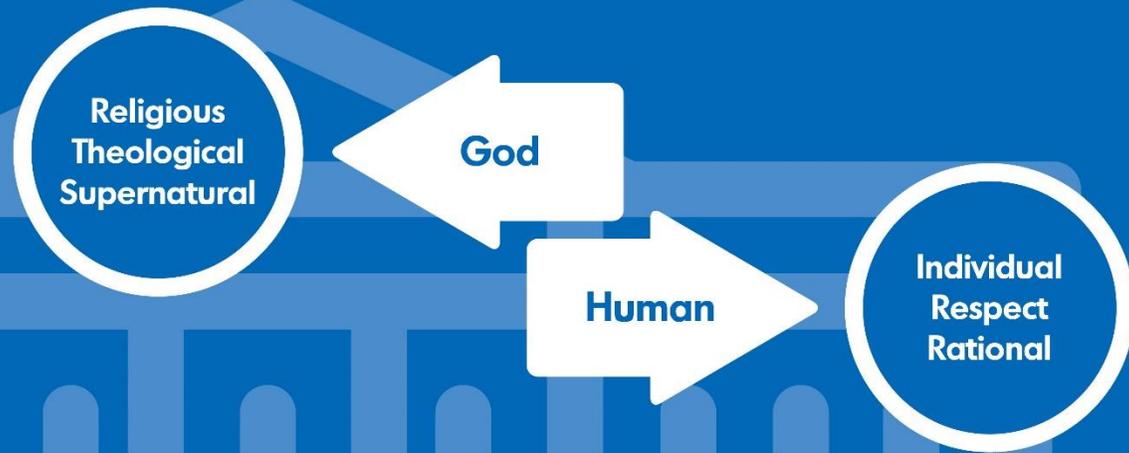
It is the national standard for the assessment of green and ecological urban district, which is no less than 3 km².

Weighting of 8 Aspects:

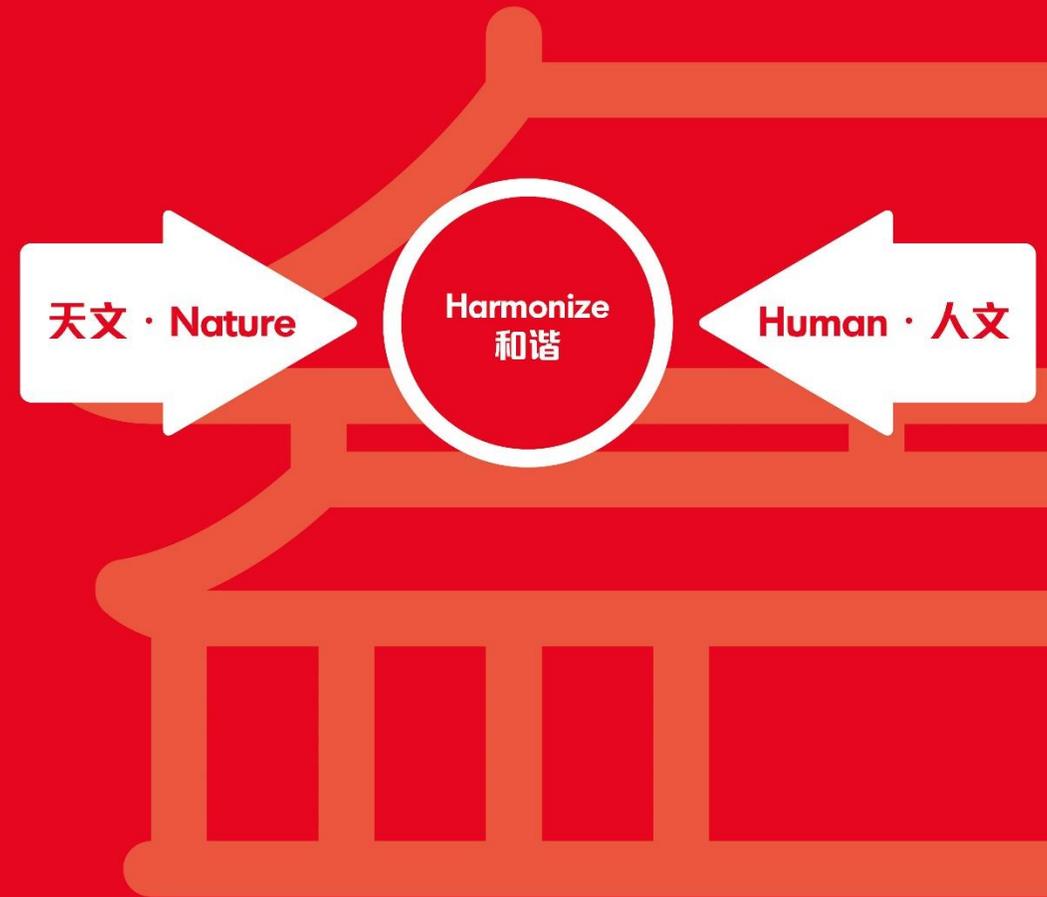
- Land Use 15%
- Ecology 15%
- Green Buildings 15%
- Resources & Carbon Emissions 17%
- Transportation 12%
- Intelligent District 10%
- Economic 8%
- Humanity 8%



The Occident



The Orient



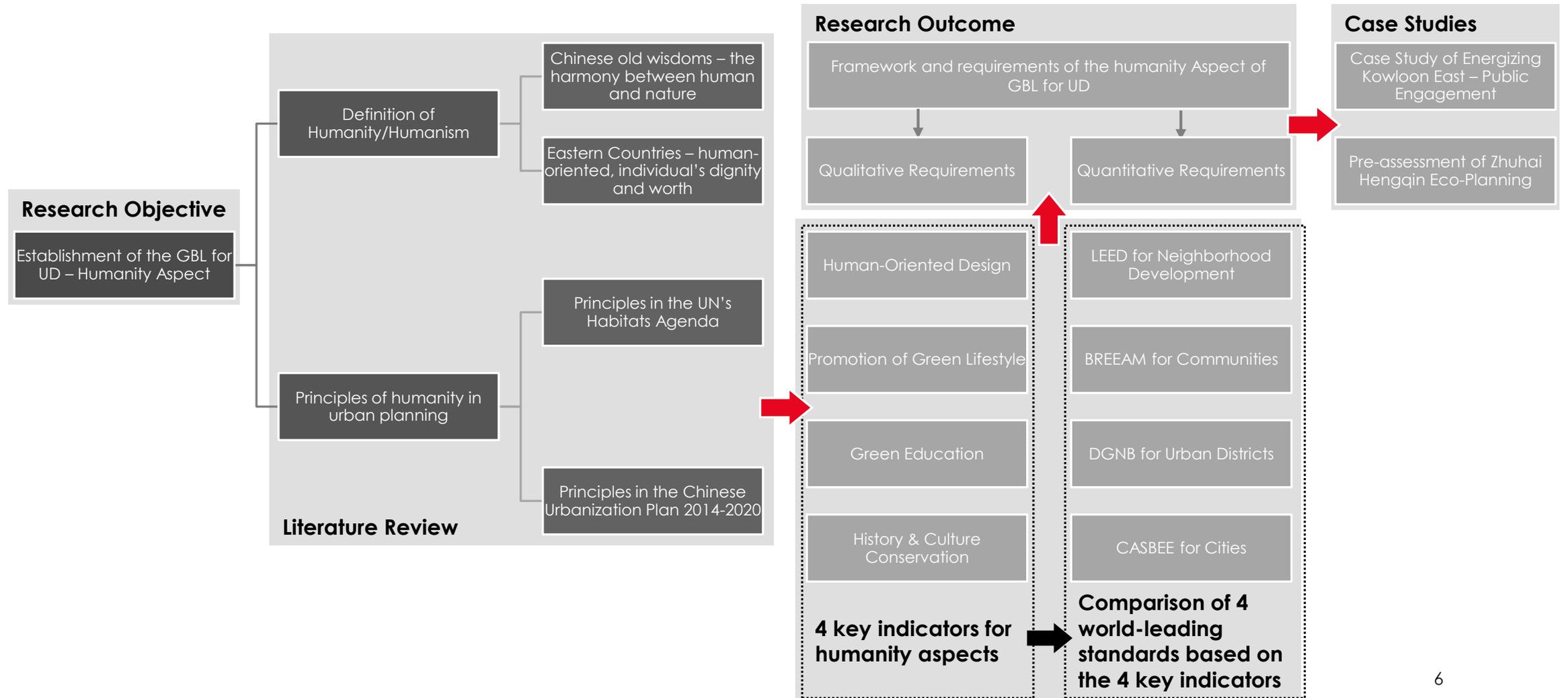
LITERATURE REVIEW

COMPARISON OF THE PRINCIPLES OF HUMAN-ORIENTED CITY BETWEEN CHINA AND THE UNITED NATIONS

Through comparative analysis between the United Nations' Habitat Agenda and National Urbanization Plan (2014~2020), we find out their common principles and different points of focus. And upon these findings, four key indicators in humanity aspect in the GBL for UD have been established .

Principles	UN Habitat Agenda	Chinese Urbanization Plan (2014~2020)	Indicators Under Humanity Chapter
Public Open Spaces/Facilities	✓	✓	Human Oriented Design
Public Engagement	✓	×	
Equality	✓	×	
Sustainability	✓	✓	Promotion of Green Lifestyle
Green Education	×	✓	Green Education
History & Culture Conservation	×	✓	History & Culture Conservation

RESEARCH FRAMEWORK

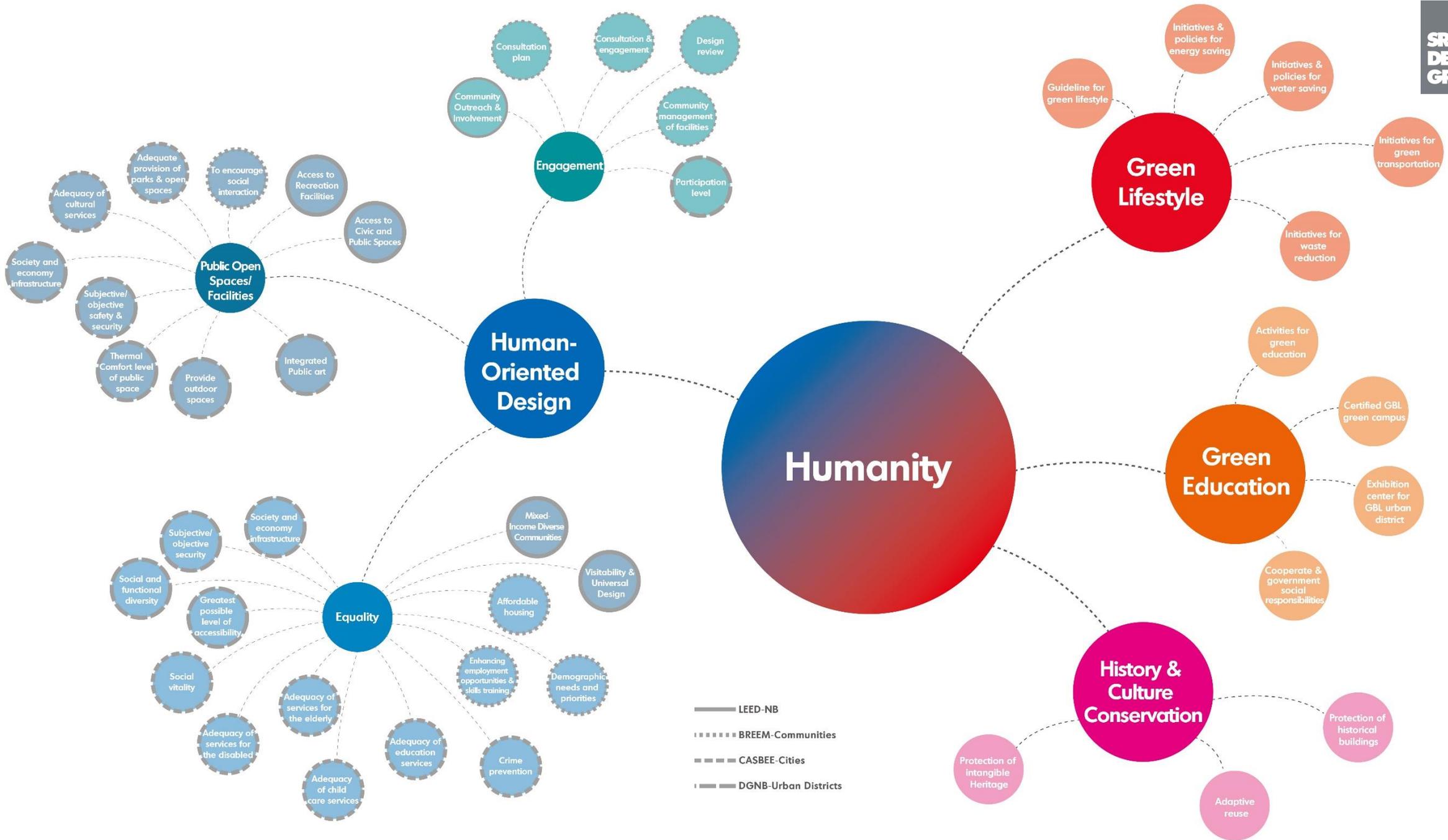


COMPARATIVE STUDY

COMPARISON RESULT OF THE 4 WORLD-LEADING STANDARDS



Key Indicators of Humanity Aspect	Credit Requirements				
	LEED-NB	BREEM-Communities	CASBEE-Cities	DGNB-Urban Districts	
Human-Oriented Design	Engagement	Community Outreach and Involvement	Consultation plan Consultation and engagement Design review Community management of facilities	— — Participation level	
	Public Open Spaces/Facilities	Access to Civic and Public Spaces	To encourage social interaction by creating comfortable and vibrant spaces in the public realm	Adequate provision of parks and open spaces Adequacy of cultural services	Society and economy infrastructure Subjective/objective safety and security Thermal Comfort level of public space Provide outdoor spaces Integrated Public art
		Access to Recreation Facilities			
Equality	Mixed-Income Diverse Communities	Affordable rented, social rented and intermediate affordable housing Demographic needs and priorities	Crime prevention Adequacy of education services Adequacy of child care services Adequacy of services for the elderly	Greatest possible level of accessibility Social and functional diversity Subjective/objective security	
	Visitability and Universal Design	Enhancing, diversifying or adding employment opportunities and/or skills training	Adequacy of services for the disabled Social vitality	Society and economy infrastructure	
Green Lifestyle	— —	— —	— —	— —	
Green Education	— —	— —	— —	— —	
History & Culture Conservation	Historical resources conservation and adaptive reuse	— —	— —	— —	



- LEED-NB
- BREEM-Communities
- CASBEE-Cities
- DGNB-Urban Districts

RESEARCH OUTCOME

ASSESSMENT FRAMEWORK FOR HUMANITY ASPECT IN GBL FOR URBAN DISTRICTS

Humanity

人文

Human-Oriented Design

以人為本

Green Lifestyle

綠色生活

Green Education

綠色教育

History & Culture Conservation

歷史文化

Public engagement

Free access for public facilities

Sufficient facilities for the elderly

Job opportunities for disabled people

Walkability for disabled people

Guideline for green lifestyle

Initiatives & policies for energy saving

Initiatives & policies for water saving

Initiatives for green transportation

Initiatives for waste reduction

Activities for green education

Certified GBL green campus

Exhibition center for GBL urban district

Cooperate & government social responsibilities

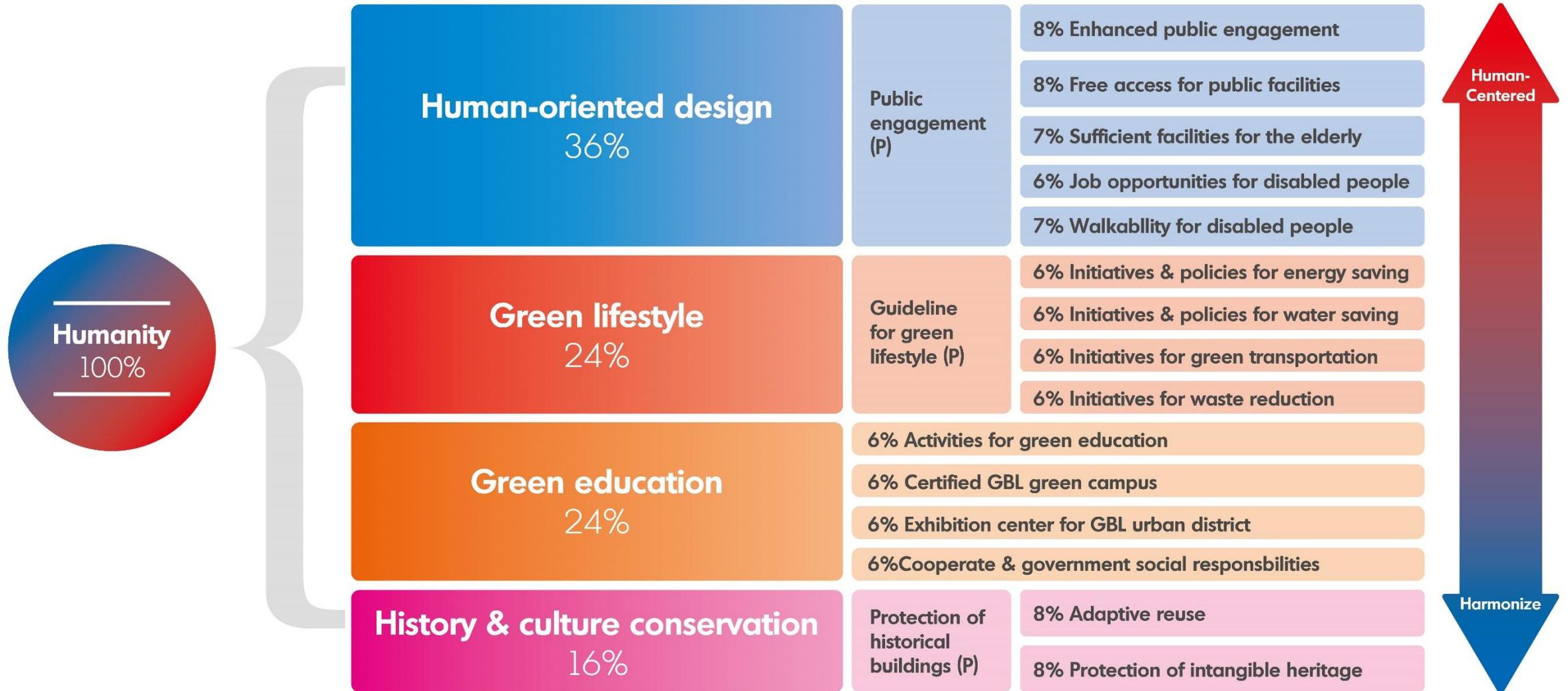
Protection of historical buildings

Adaptive reuse

Protection of intangible Heritage

RESEARCH OUTCOME

CRITERIA FOR HUMANITY ASPECT IN GBL FOR URBAN DISTRICTS



SIGNIFICANT & IMPLICATION

LEED has started to develop the neighborhood development evaluation standard since 2004, while GBL has started since 2014. It is a 10-year knowledge gap between the two systems and China needs great efforts to catch up.

Due to the rapid urbanization in China, green and environmental friendly urban planning becomes more and more important and it is necessary for China to develop her own green and ecological urban district planning standard.

During the development of the GBL for UD, the whole research team agreed that **a good sustainable planning could not only consider environmental issue but also social and economic issues**. Thus, this research is focusing on human-oriented and social-cultural issues, and aiming to establish a whole new aspect in the GBL for UD, which is never existed in other national standard in China.

The framework of humanity aspect is based on the comparison result of LEED ND, BREEAM Communities, CASBEE Cities and DGNB UD, and **incorporate some new thoughts – the promotion of green lifestyle and green education**. These become one of the characteristics of the humanity aspect.

The GBL for UD has been approved by the expert review board from the MOHURD in March 2016. We would like to give our acknowledgment to the Energizing Kowloon East Office for the support of the public engagement case study.

