- OBSERVANCE OF THE "WORLD CITIES DAY 2018" -

THE 2018 ANNUAL SESSION OF GLOBAL FORUM ON HUMAN SETTLEMENTS

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BUIDING GREEN MODEL CITY
IMPLEMENTING SDG11 AND NEW URBAN AGENDA
AT LOCAL LEVEL

建设绿色范例城市
在地方层面贯彻SDG11和新城市议程

Global Forum on Human Settlements

October 30, 2018, UNCC, Bangkok

Part I The concept of IGMC Standards 3.0

In light of the IGMC concept, the greener cities resemble trees

Inspirations from Trees for the Development of Green Cities:

1. Best technology with photosynthetic energy: By absorbing solar energy through photosynthesis, it provides the best renewable energy in a simple, efficient and continuous way;

2. Environment-friendly by sequestrating carbon and releasing oxygen: It offers refreshable breathing for life, purifies air quality, and helps to control atmospheric carbon dioxide concentration;

3. Circulating resources without making any waste: It is good at synthesizing organic matter, recycling water and nutrient, keeping ecological balance, and making life go onward in an endless succession.

4. Even interconnection in the leaf vein network: Reaching a single target through multiple paths, it provides a flexible urban traffic network mode.

5. Inclusive and equitable: Every leaf has equal opportunities, and there's no polarization and social segregation. It can matter-of-factly realize the goal of realize the goal of leaving no one behind.

绿城如树

Green Cities Resemble Trees

为诠释2018全球人居环境论坛年会“绿色范例城市”主题而作

Versifying the theme of "Green Model Cities" at the annual conference of the Global Forum on Human Settlements 2018

亭亭树参天，
大道法自然。
能量借白日，
源源不间断。

Gracefully erect, the trees are towering,
Like Tao that closely follows nature.
Uninterruptedly from them energy is emanating,
For daylight provides the source of power.

沐泽善化育，
升落自循环。
固碳释鲜氧，
众生吐纳酣。

Blessedly rained and dewed, they thus tend to cultivate,

In a robust cycle they turn over and over again.

They oblige loads of carbon to sequestrate,

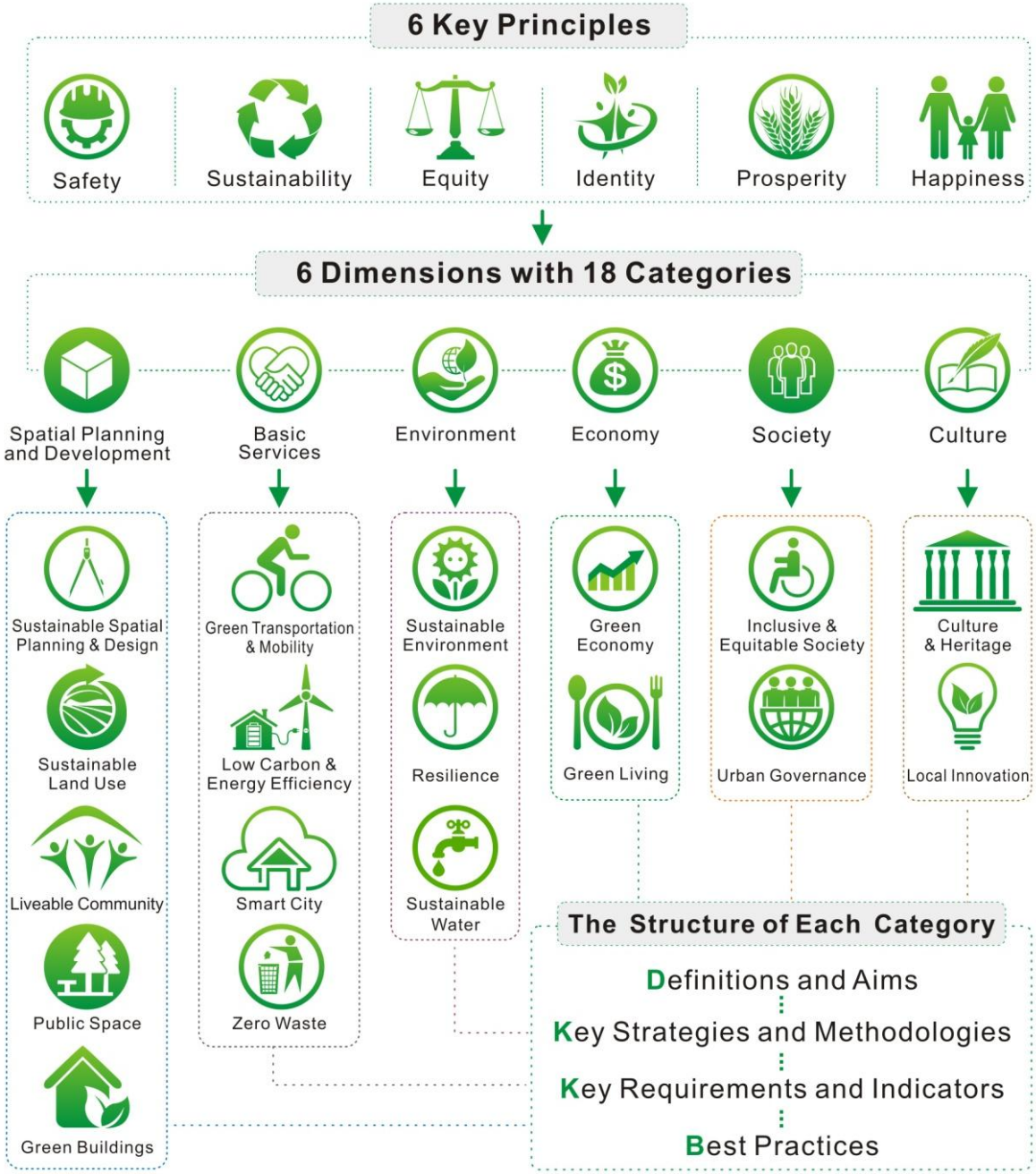
While nursing numerous breathing lungs with fresh oxygen.

叶脉网络匀，
殊途通各点。
瓣瓣欣共享，
飒飒风来欢。

The leaf vein network is balanceably level,
Reaching each cell through every different way.
Happily it conveys synergy from petal to petal,
And ushers rustling wind to merrily stay.

绿城若如树，
幸福遍人寰。

As long as Green Cities resemble trees,
The world will teem with happiness forever.


6 Key Principles
Safety
Sustainability
Equity
Identity
Prosperity
Happiness
6 Dimensions with 18 Categories
Spatial Planning and Development
Basic Services
Environment
Economy
Society
Culture
Sustainable Spatial Planning & Design
Sustainable Land Use
Liveable Community
Public Space
Green Buildings
Green Transportation & Mobility
Low Carbon & Energy Efficiency
Smart City
Zero Waste
Sustainable Environment
Resilience
Sustainable Water
Green Economy
Green Living
Inclusive & Equitable Society
Urban Governance
Culture & Heritage
Local Innovation
The Structure of Each Category
Definitions and Aims
Key Strategies and Methodologies
Key Requirements and Indicators
Best Practices

The structure of IGMC Standards 3.0

Rooted in the *2030 Agenda for Sustainable Development* and the *New Urban Agenda*, the vision of "IGMC Standards 3.0" is based on six basic principles: **Safety, Sustainability, Equity, Identity, Prosperity and Happiness**, and is carried out through the 18 categories of the six dimensions **of spatial planning and development, basic services, environment, economy, society and culture**.

Furthermore, the 18 categories are further elaborated in terms of **definitions and aims, key strategies and methodologies, key indicators, scoring systems and best practices**.

It is written in both English and Chinese.

Releasing Ceremony of IGMC Standards 3.0

Habitat Ⅲ, Oct.18th, 2016, Quito

An advanced tool for assessing and guiding sustainable urban development

The IGMC Standards 3.0 is an advanced tool for assessing and guiding sustainable urban development. Released in Quito, the capital of Ecuador during the Habitat III Conference in 2016, it is a set of effective strategy documents including the evaluation and certification system compiled by renowned international experts on the basis of summarizing the rules and many successful experiences of urban planning and construction around the world. It bears universal significance and reference value.

Roles of IGMC Standard 3.0

A. Assessing sustainability of existing urban areas, identifying opportunities for improvement and transformation;

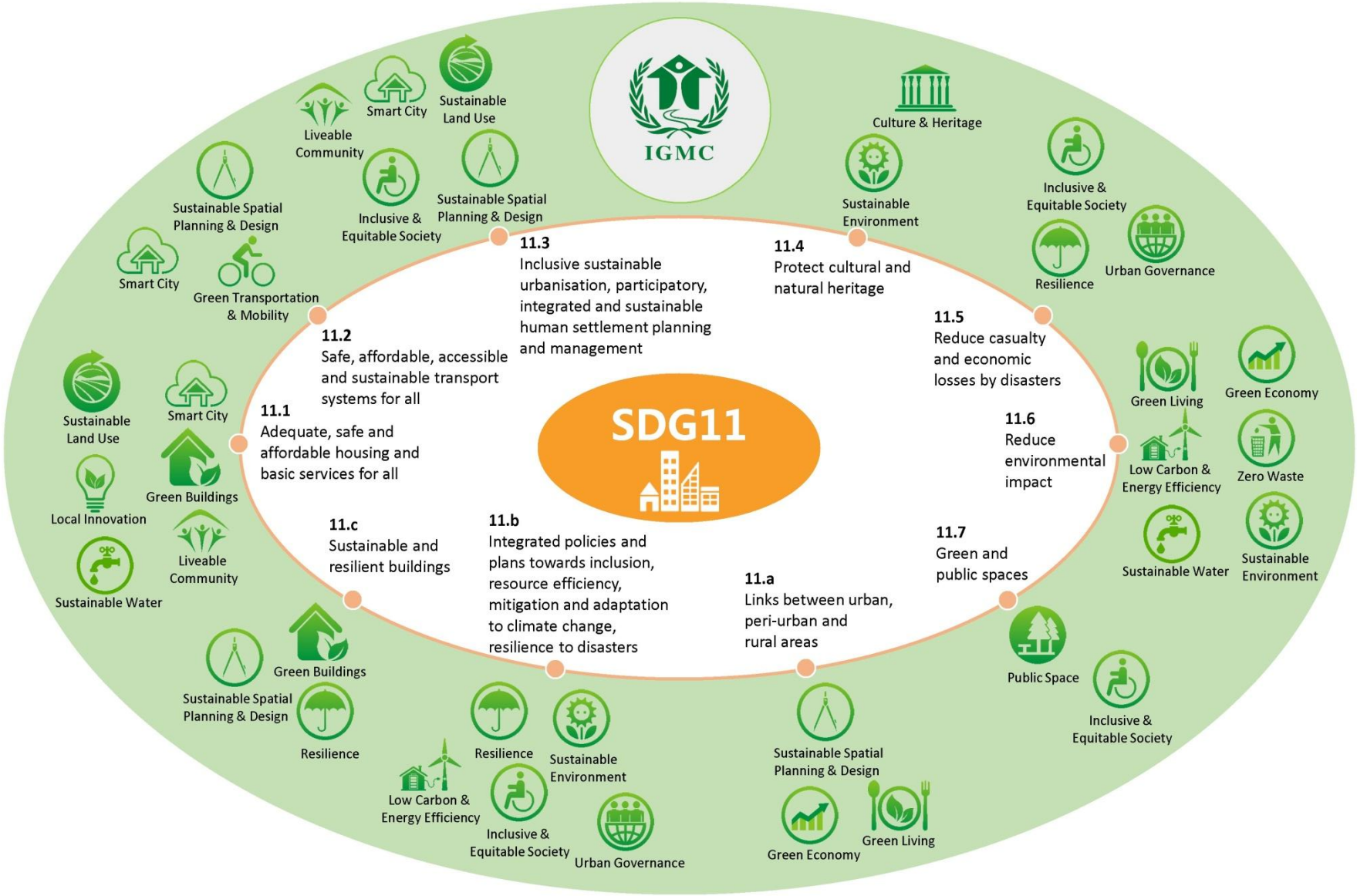
B. Helping governments formulate policies and action plans as well as guiding them in planning and construction for stronger competitiveness and promoting implementation of *SGDs* and the *New Urban Agenda*;

C. Guiding the process of urban sustainable development projects for improving overall performance and efficient investment;

D. Appraising projects at planning or design phases to identify gaps and opportunities for improvement and avoid various risks;

E. Providing a timely urban sustainable development training manual for relevant stakeholders.

Relevance between IGMC and SDG11



Comparison of IGMC 3.0 Standards and SDG 11

SDG 11 Target	SDG 11 Indicators	IGMC Category & Indicators
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing	**Category 5.1: Inclusive and Equitable Society** Proportion of urban population living in slums, informal settlements ≤1% Housing Affordability Index ≥100 Housing diversity in any given neighborhood, Percentage of the residential floor area distributed to low cost housing ≥20%, each tenure type of the total ≤50%
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	11.2.1 Proportion of population that has convenient access to public transport, by age, sex and persons with disabilities	**Category 2.1: Green Transportation & Mobility** Percentage of commuters using public transit ≥50%， Percentage of commuters using public transit, car-sharing, carpooling, bicycling or walking ≥80% Length of Public transport provision ≥6 km/km2

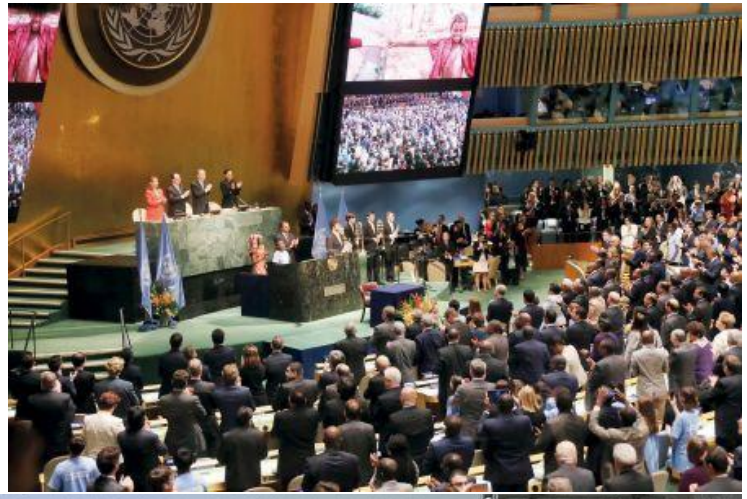
SDG 11 Target	SDG 11 Indicators	IGMC Category & Indicators
11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	11.3.1 Ratio of land consumption rate to population growth rate 11.3.2 Percentage of cities with a direct participation structure of civil society in urban planning and management which operate regularly and democratically	**Category 1.2: Sustainable Land Use** Ratio of land consumption rate to population growth rate, at comparable scale, should be ≤100% Urban development land per capita ≤100 m^2 **Category 5.2: Urban Governance** Percentage of voter participation in last municipal election ≥40% Public planning and management with a strong community engagement in a participatory process that operate regularly and democratically
11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	11.5.1 Number of deaths, missing and persons affected by disaster per 100,000 people 11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services	**Category 3.2: Resilience** Established a well-coordinated system including a city disaster management centre to improve disaster prediction and emergency response Response time for emergency response services from initiative call ≤5 minutes Enforcing seismic and disaster design and construction for 100 % of infrastructures and buildings to meet the respective national standards Per capita regular shelter area ≥3 m^2

Part Ⅱ：International Green Model City Initiative

The International Green Model City Initiative was launched by GFHS at the United Nations Headquarters in April 2011, in close collaboration with various international organizations including UNEP, concerned national and local governments. The Initiative never stops improving itself to keep up with the times.

As an innovative greener urban development action plan, the IGMC stimulates forward looking and responsible governments, businesses and social forces to work together to achieve sustainable cities and human settlements for all.

The IGMC Initiative has been registered with the United Nations as a voluntary commitment of Rio+20 and 2030 Agenda for Sustainable Development as well as a conscious action to implement the SDGs, Paris Climate Agreement and NUA at the local and community levels.



Aims of IGMC Initiative

In the new global context and evolving regional and local needs, the development of sustainable cities is facing severe challenges while offering many opportunities. IGMC Initiative aims to use IGMC Standards 3.0 as one of a variety of advanced planning tools by providing innovative concepts, integrated strategies and methodologies, benchmarks and monitoring framework as well as demand-oriented solutions for assessing and guiding sustainable urban development, conducting pilots, in conjunction with other approaches, to facilitate sustainable cities and human settlements for all, and to create a shared platform for dialogue and cooperation among the global stakeholders for the sake of establishing a new partnerships in support to the implementation of SDGs and NUA.

Model of IGMC Implementation

The synergies between IGMC categories in Copenhagen

Copenhagen densities of people and jobs are aligned with transit accessibility. Source: LSE Cities

IGMC Implementation in Copenhagen reflected in several categories as below:

Spatial Planning and Development. Copenhagen has outstanding green land use policies. The city land use policies are based on the ongoing redevelopment of brownfield sites and the widespread availability of and accessibility to green spaces (almost 80% of residents in the municipality of Copenhagen live within 300 meters of a park or recreation area). Between 2000 and 2009, 80% of new developments were built on brownfield sites.

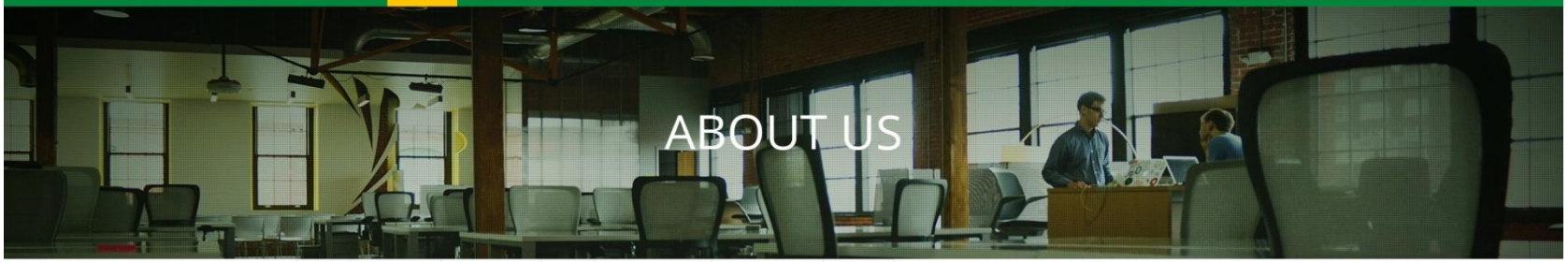
Green Transportation and TOD. Copenhagen has an extensive public transport system, including a metro system, suburban railway and bus networks, and virtually all residents live within 350 metres of public transport. Copenhagen densities of people and jobs are aligned with transit accessibility. In addition, the Danish capital aims to become the "world's best cycle city" by raising the share of residents who regularly use a bicycle to commute from 36% in 2009 to 50% by 2015.

Low Carbon and Energy Efficiency. In 2009 Copenhagen set a target to become CO2 neutral by 2025, which if met would make it the first large carbon-neutral city in the world. The national government's climate change strategy aims to raise the share of renewable energy to 30% of total consumption by 2025 from 17% in 2008. The annual energy consumption of residential buildings, at 554 megajoules per square meter, is the lowest of the 30 European cities in the Economist Intelligence Unit survey. The city aims to achieve 10% of its CO2 reductions through construction and renovation projects, with plans to upgrade all municipal buildings to the highest standards for energy efficiency.

Governance and Behavioural Change. Copenhagen is also joint first (with Brussels, Helsinki and Stockholm) in the individual category of environmental governance, in part for its strong collaborative efforts to set policies. The city has excellent performances for water system leakages, wastewater treatment and water efficiency. Some 55% of all waste is recycled. The city constantly promotes to rise the share of residents who regularly use a bicycle to commute. The municipality has recently taken steps to ensure integrated environmental management across all of its departments, appointing environmental coordinators for each administrative unit, who meet regularly to exchange experiences.

IGMC Members and Pilots

Some well-known cities and enterprises have joined the IGMC Initiative, such as Vancouver (Canada), Cape Town (South Africa), Mannheim (Germany), Seberang Perai (Malaysia), Cuenca (Ecuador), Liuyang National Economic & Technical Development Zone, Wuyi County of Zhejiang Province, China Railway Real Estate Group, Vanke, Country Garden, Mission Hills. Some of them have also been on the list of IGMC pilots.



Expert committee

IGMC Expert Committee is mainly composed of well-known experts and scholars in related fields. It provides technical support for the promotion and development of IGMC initiative and standards, and offers services for IGMC VIP members and partners. Its main responsibilities are: to improve the IGMC standards and technical strategies, participate in organizing IGMC training, seminars and other activities, verify IGMC assessment and certification data, provide advisory services for IGMC VIP members and pilot projects, and conduct IGMC-related research projects.

Serge Salat

President, Urban Morphology and Complex Systems Institute, Paris, France,Leading Expert of International Green Model City Standards 3.0

Warren Karlenzig

Senior Sustainability Expert, founder and president of Common Current, based in San Anselmo, USA

Wang Dehui

Former Deputy Director-General of the Nature and Ecology Conservation Department, SEPA & Director of China Office for "Implementation of the Convention of Biological Diversity"

Xu Zongwei

Vice Chairman of the Architects Regional Councial Asia, Vice Chairman of the Architectural Society of China

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Hou Baizhen

President of APCE Design Group, Professorial and Senior Urban Planner, Proprietor of Urban Planner Magazine

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Chief, Sustainable Urban Development Section at United Nations Economic and Social Commission for Asia and the Pacific

Craig Pekins

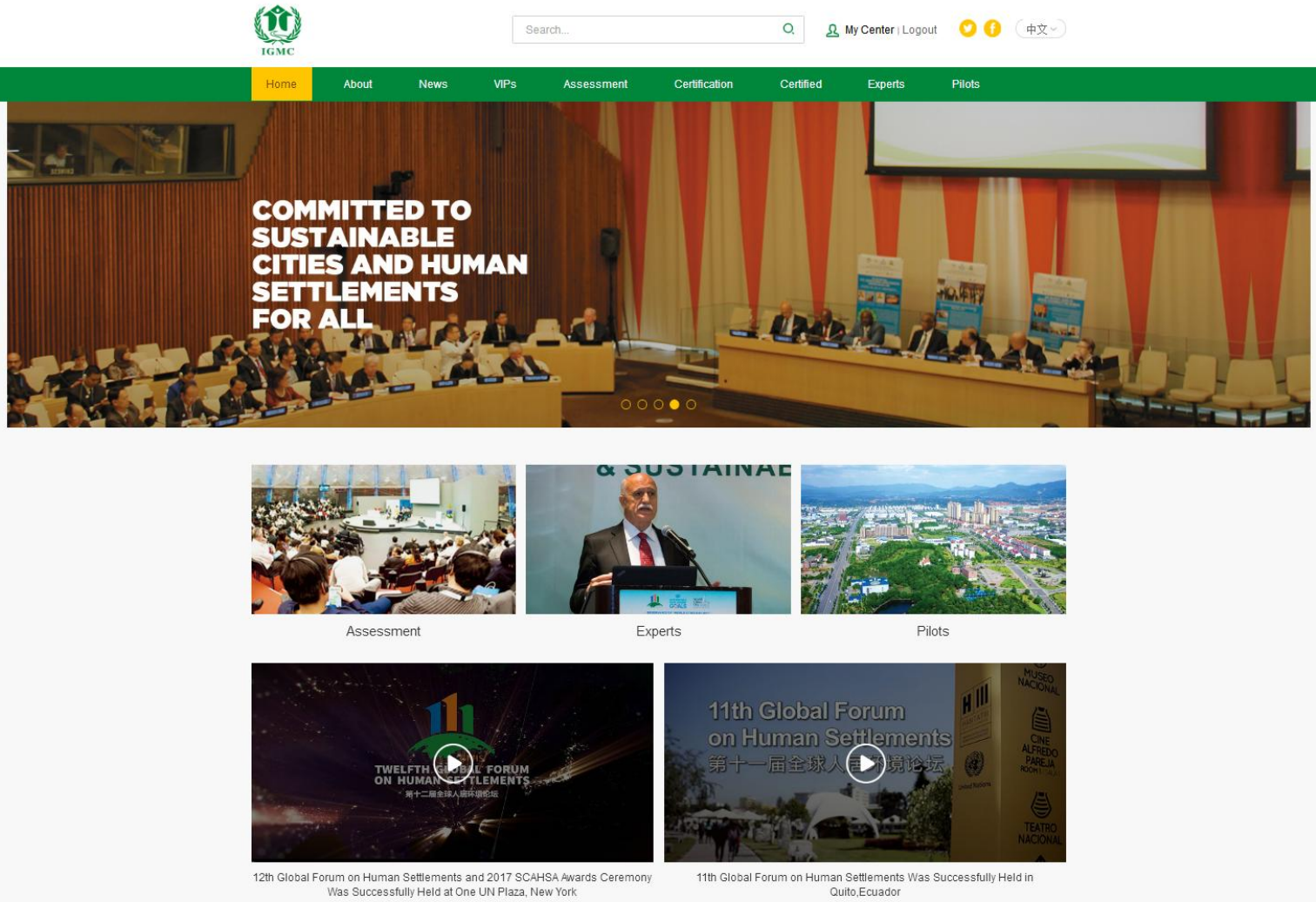
President & Executive Director of the Energy Coalition, USA， Former Director of Environmental and Public Works Management in the City of

International Green Model City Standards 国际绿色范例新城标准

An Assessment and Planning Guidance Tool for Sustainable Urban Development

Part Ⅲ :IGMC Online Assessment and Certification System

www.igmci.org



Making Assessment and Certification, Collect and Analyze Data

Assessment

IGMC Rating Systems- City Version

Total 6 Dimensions, 18 Categories, 112 Indicators (32 mandatory), 320 Points

Dimension 1. Spatial Planning and Development

1 Sustainable Spatial Planning & Design

*※1.1. Integrated planning across scales and sectors applied

Integration of different sectors and of different geographical scales in the urban development increases sustainability efficiency and resilience, and helps decision makers manage urban growth and change. It provides a platform for the formation of community consensus about planning issues.

☐ Yes ☐ No Either-or, The same below

1.2. Enforcement of an urban growth boundary

An urban growth boundary means that the city is regenerating and redeveloping by infill instead of extending outwards, thus having a more sustainable urban form and leads to better environmental and economic performance.

☐ Yes ☐ No

1.3. Annual growth rate of the urban footprint is ____ % Please fill in the exact data in the box; the same below

A rapidly growing urban footprint (built-up area) can have a negative impact on the surrounding environment and place strain on current infrastructure, exacerbating or creating traffic congestion and inadequate access to utilities and other public services. The formula to estimate annual growth rate of the urban footprint is: ln(A1/A2)/y. A1is total built-up area for current year ; A2 is total built-up area for past/initial year ; y is the number of years between the two measurement periods.

1.4. Population density in build-up urban area is ____ people/km², in urban center is ____ people/km²

Promoting high density urban growth, alleviates urban sprawl and maximizes land efficiency.

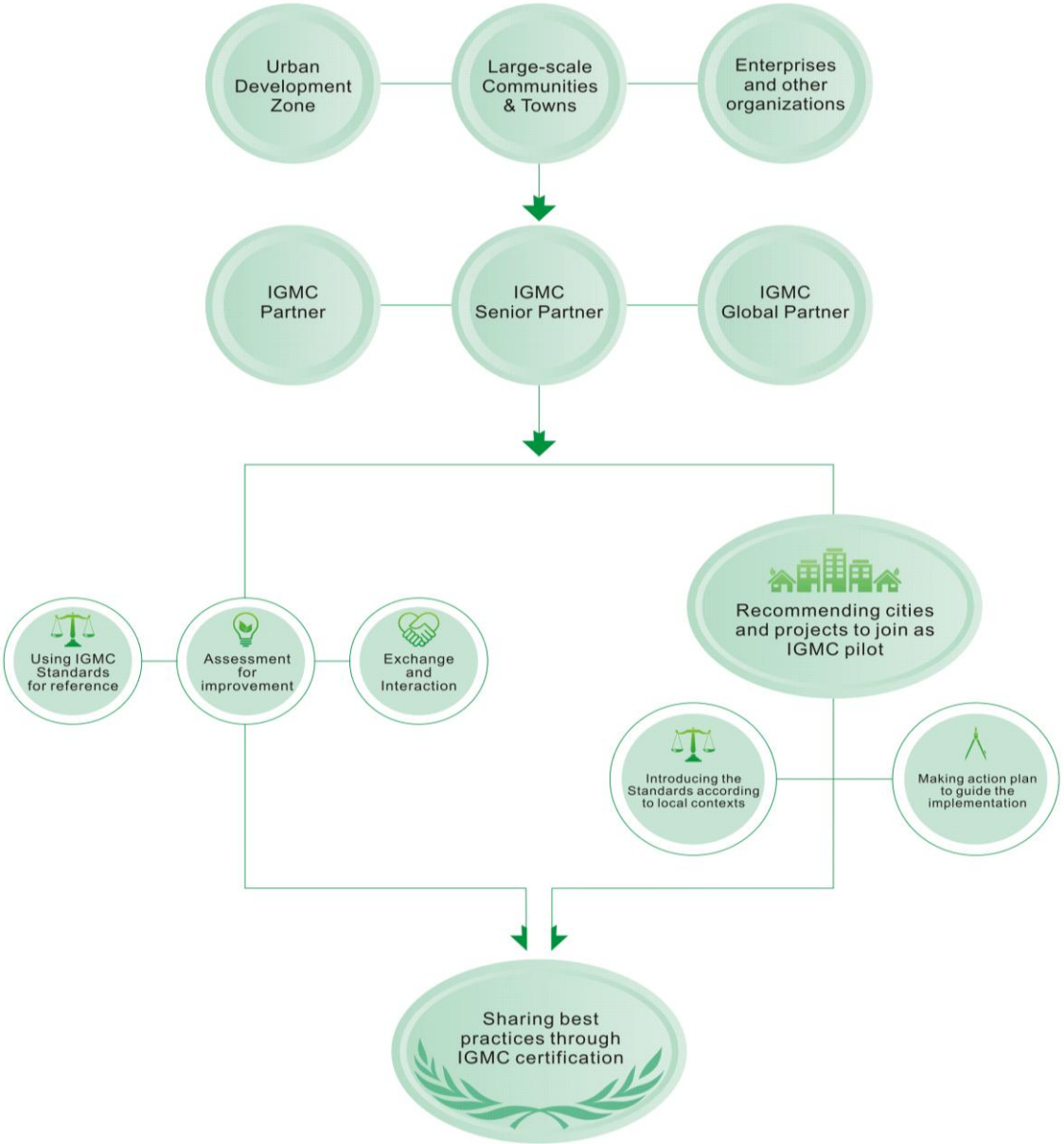
1.5. The job-resident ratio (the number of people employed divided by the number of residents) is ____ % over every commuting district

Every commuting district should have a spatial area that is no more than 15 km2. A high job/resident ratio fosters local employment, local production and local consumption giving higher opportunities to local people, greater inclusiveness and reducing transportation impacts on environment

1.6. Percentage of population and jobs within 800 meters to transit is respectively ____ % and ____ %

Accessibility to transit for people and jobs is key to high transit modal share with associated sustainability benefits

Procedures for Joining IGMC Initiative



THANK YOU. SCAHSA！👌👌

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