

## International Horticultural Exhibition 2019 Beijing China

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**Year of commitment** : 2016

**CO2 Impact** : CO2 reduction 131,686 tons



461 850 789 €

**Green energies** : Photovoltaic solar, Geothermal, Electricity, Cool, Heat, Electricity, Cool, Heat

**Digital services** : Data centers, Cloud data solutions, Mobility, Water, Waste, Health, Comfort, Automation, Safety

**Water cycle** : Collection, Containment, Purification, Capture, Waterways, River bed and river bank restoration, Foreshore restoration, Phytoremediation, Used water recycling, Prevention, Protection

**Circular economy and waste management** : Eco-Design, Preservation of natural heritage, Optimization of resources, Bio-based materials, Save of resources, Mechanical recycling, Organic recycling

**Biodiversity & Ecosystems** : / Urban Microfarm, Roof Agriculture, Shared garden, Green roof, Green and blue corridor, Air recycling, Ecoducs, Buffer zone, Ecosystem restoration, Ground recovery, Environment education, Eco-tourism, Ecosystems preservation /

### GENERAL INFORMATION

International Horticultural Exhibition 2019 Beijing China is approved by the International Horticultural Producers Association (AIPH) and recognized by the International Exhibition Bureau (BIE). It is hosted by the Chinese Government and sponsored by the Beijing Municipal Government. It is held in Yanqing District, Beijing, China, covering an area of about 503 hectares. The conference will be held from April 29 to October 7, 2019. The theme of the conference is "Green Life, Beautiful Home".

Park planning adheres to the planning concept of "ecological priority, learning from nature; inheritance of culture, openness and inclusiveness; scientific and technological wisdom, fashion diversity; innovation and sustainable use", planning structure layout: one core, two axes, three belts, multi-area. The main venues of China Pavilion, International Pavilion, Life Experience Pavilion, Botanical Museum and Dunhua Theater are planned to undertake exhibition and forum activities, and more than 100 outdoor exhibition parks are planned and constructed.

### Progress Status

Delivered

## Data Reliability

Self-declared

## Funding Type

Public

## Website Enterprise / Infrastructure

<http://www.syj-expo2019.org.cn/expo/xxgk/jgzz.shtml>

## Sustainable Development

**Attractiveness** : Lisiguanzhuangcun Village is located in the core landscape area, the village is relocated as a whole in the surrounding area, and the employment of the villagers is arranged in the park. Gujiayingcun Village is located on the south bank of the Guishui River in the fenced area, the villagers resettled, and the original site was moderately upgraded, and the functions were implanted as a horticultural village during International Horticultural Exhibition 2019 Beijing China. Dafengyingcun Village, Dalucun Village and Xiaodafengyingcun Village are located in the non-fenced area, we retained the original site of the village, improved the environmental quality, improved the living support level, promoted industrial upgrading, provided more employment options, and created a model for ecological, living and production linkage development.

After the conference, the park will be transformed into a regional large-scale ecological park, which will become an important part of the tourism system in the northwestern part of Beijing-Tianjin-Hebei. Together with the Badaling Great Wall, Chongli and Chengde, it will create a multi-day golden tour line to complete the upgrade of Yanqing District. At the same time, the annual Beijing Flower Show brand will be established, together with the surrounding areas, to become a gathering area for the horticultural industry, and undertake the functions of horticultural research, production, display and trading.

The characteristic experience of "The Story of Life". Interpret the "story of life" in the process of seed growth, using the required condition of the process of germination to fruit ripening of a seed, namely, soil, water, wind, sunlight, temperature, to reflect the cycle of the seeds and the continuation of life. We advocate green ecological themes, remind people to recognize the potential crisis of the earth, and build a society that lives in harmony with nature.

The experience of "ecological technology". The specific design uses ecological science and technology such as low-impact development, zero-emissions of sewage and low-energy buildings, and proposes relevant technical measures for the waterfront environment, architectural design, landscape facilities and planting greening of the park. We demonstrate a scientific landscape that follows ecological principles.

A fun experience of "ecological science knowledge". The appliance of clean energy, natural environmentally friendly materials, and ecological monitoring systems in popularization of science knowledge, educational activities that are fun and entertaining, experience facilities with high participation, and high-tech interesting pieces promotes communication between people of natural knowledge.

Intelligent View: based on Augmented Reality Technology (AR) as the core, integrating virtual reality technology (VR), spatial positioning and other technologies, we have developed a smart viewing system to achieve the integration of culture and technology.

Smart Transportation: In the transportation planning stage, traffic simulation and comfort assessment studies were carried out to simulate and predict the flow of people at the entrances, exits, roads and venues of the park to optimize the entrance and exit and road design.

Smart Building: The core venues in International Horticultural Exhibition follow the intelligent architectural design concept and technology, and introduce information application systems, indoor environmental quality monitoring systems, intelligent building monitoring systems, efficient energy monitoring and energy efficiency optimization systems, video security monitoring systems and electronic patrol system, etc.

Intelligent light pole: Smart street light relies on LED street light and intelligent control platform, integrates WIFI base station, camera, infrared sensor, electronic display and other technologies to become information carrier, realizing functions such as data monitoring, environmental monitoring, security monitoring, light pole screen, emergency alarm, etc. It provides a complete carrier for the construction of smart parks, and provides the ability to respond to public management, security and emergencies in the park by integration with big data, Internet of Things, cloud computing, and wireless communication technologies.

Intelligent Pipe Gallery: the total length of the underground intelligent integrated corridor is about 3.4 kilometers. It integrates various engineering pipelines such as electric power, communication, gas, heat supply, water supply and drainage, and has special inspection port, lifting port and monitoring system. Unified planning, unified design, unified construction and management can realize online monitoring and alarming of various engineering pipelines in the pipe corridor, and realize data analysis and management through the IoT platform.

### Well Being :

Soundscape planning: we establish a sound point and face level planning control system, control the sound within 45-70 decibels, in order to give people the best auditory enjoyment; we use the noise reduction system to divide the road and important nodes to make the road noise enter the venue as little as possible, and each venue is as simple and uniform as possible.

Green shading: with combination of the partition function and space characteristics within the planning scope, comprehensive consideration of traffic flow and concentration of people, we rationally developed a partition shading target, the different "line + point + face" combination constitutes the functional partition of the green shade system, eventually the shade ratio of the park reached 30.5%, and the shade ratio of public space reached 51.8%.

Ecological water vein: retaining and expanding the constructed wetland as the starting and source of the ecological water vein. By receiving the reclaimed water from the sewage treatment plant, after the wetland purification treatment, the water quality of the park water is not lower than the Class III water quality of the surface water, and maintain high quality non-traditional water demand in the park, and ensure the safety of non-traditional water sources.

In the park, we should build a "one-heart, one-ring and four-circle" traffic organizational structure, rationally organize pedestrian, vehicle and freight traffic in the park, organize three kinds of high-quality horticultural tour routes of "3 hours-7 hours-2 days" according to different tourists' needs, and set up float tour in the core area. According to the need of humanization, shading facilities are set up in main traffic flow lines and residential areas; the spacing of rest facilities in the park is less than 100 meters, and the rest chairs are arranged in a centralized and decentralized way; the sun and rain protection measures are set up in the outdoor areas; self-service vending machines, drinking water places, Exhibition electronic maps and other facilities are also set up. The barrier-free toilets in the park cover 100% of the total. The ratio of male to female toilets is 1:3. Gender-free toilets and maternal and infant rooms are also set up. According to the distribution of

demand and the integration of all kinds of fixed and temporary supporting service facilities, catering facilities with a service radius of 200 metres are planned. The centralized and decentralized combined shopping facilities totals 7,500m<sup>2</sup>, and supporting service facilities such as consultation guide and medical rescue are 17,000 Square meters.

We sorted out the historical and cultural resources of the park, and formed the historical and cultural context of the spatial layout of the park. We not only protected the specific cultural relics in the park, but also preserved the local style and inherits the culture of regional culture in the planning and architectural design.

Cultural relic protection: we protected the relics with certain historical and cultural values, such as beacons and ancient wells. The combination of monument protection and venue facilities will play an active role in understanding the long history and culture for people.

Texture protection: respecting local culture, preserving the local style, and protecting the original texture and pattern. The buildings and landscapes in the horticultural town show a rustic and honest landscape of local style.

Regional Culture: characterized by regional culture, we created a characteristic space bearing historical memory. For example, Tiantian District representing Chinese horticultural culture, Yongningge with Liao and Song architectural style which is the commanding height of the park, and No. 1 ritual gate that condenses traditional Chinese elements.

Smart navigation guide: the "Wisdom World Park" APP tour guide function is used to provide support for the diversion of visitors, the distribution of management personnel, and the rational use of the resources of the park's service facilities, so as to enhance the visitors' sense of wisdom and experience.

The ultimate experience service: through the comprehensive use of artificial intelligence, virtual reality (VR) and other high-tech, to build virtual landscapes and interactive scenes, to create a comfortable and convenient, immersive tour environment and a variety of ways to visit.

Park service and integrated management based on big data analysis of tourists: use big data analysis, WIFI positioning, video intelligent analysis and other technologies to effectively collect, integrate and analyze visitor data, and perceive, monitor and alert key venues or areas, and provide data support for efficient operation and leadership decision of the park.

Create a new mode of night tour: Through human-computer interaction technology, the interaction between virtual video content and tourists and the natural environment of the park can be organically combined to create a science fiction light and shadow forest, providing a new night experience environment and a new mode of sightseeing.

External traffic: improve the road network around the park, form a network system connecting the park and the three surrounding expressways; increase the bus to achieve intensive travel; set up cut-off car parking lots in different layers, change the travel structure; strengthen traffic demand management and reduce the level difference of passenger flows between extreme peak days and weekdays.

Internal traffic: The people and vehicles in the park are diverted, the road space is miniaturized, and the tall trees are planted in the landscape to create the effect of the green avenues. During the event, battery buses and float parade at different times are main transportation, which are clean energy vehicles. The transportation facilities such as the battery bus stations and the public green space are integrated. The battery bus stations in the road is coordinated with the passenger waiting space in the green space; the sidewalk is coordinated with the green landscape and gardening sketches. At the same time, the construction of the park also adopts environmental protection measures such as the use of earthwork in the area, the recycling of existing asphalt concrete, the filling of tree pools with environmentally friendly water permeable material, and the use of existing bridges.

**Social Cohesion** : Creating a good classroom for ecological civilization. After the conference, the China Pavilion will be transformed into a national-level ecological museum; the Botanical Garden continue to serve as a core venue for the International Horticultural Exhibition, providing youth education facilities, exhibitions and other external service functions.

Building a new engine for green development. Relying on the horticultural industry belt, it gathers cutting-edge technologies and cultural elements of flowers, fruits, medicines, vegetables, tea and other industries to build a world-class horticultural cultural function zone and promote the development of the horticultural industry.

Helping the new guarantee of winter Olympics. After the event, the World Park Hotel will serve as an important carrier for the Winter Olympics and Yanqing tourism and leisure industry to create a horticultural theme resort hotel; the Security Command Center will transform some areas into hotels that provide the necessary services for the Winter Olympics.

Construct a new landscape of ecotourism. The park combines the Badaling and Zhangjiakou areas to construct a rich eco-tourism belt. The horticultural town builds a gardening-led cultural tourism industry. During the event, business packages will be transformed into themed commercial entities for business

**Preservation / Environmental Improvement** : The ecological landscape mechanism before the construction of the park is good, there are large areas of woodland, water, farmland, etc. In order to fully respect the existing ecological and landscape environment, combined with local characteristics, we investigated the biomes, types and quantities. According to the survey results, we selected common birds, fish, butterflies and frogs as target species of habitat creation, protected areas will not be damaged, no human interference is allowed, by plant configuration and optimization or modification of major environmental factors, providing the target species with a place to forage, shelter and reproduce to meet the environmental needs of their habitat and survival. Thereby creating diverse biological habitats, enriching biomes and improving the biological circulation system.

Soil conservation and improvement. Specific measures include: determining the soil fertility and pH value in the park, and arranging several points in different habitats. No less than 5 points of 0-20cm and 20-40cm in each habitat shall be tested to analyze and evaluate the current soil; intercepting the source of pollution, avoiding soil pollution by water; preventing pollution of soil by pesticides, fertilizers, etc.; increasing the natural fertility and preventing soil erosion; artificial soil improvement is carried out on barren land to meet the requirements of plants for water and fertilizer.

By separate water supply, water saving irrigation and non-traditional water use, building a multi-economy water supply security system.

Coordinate low-impact development, rainwater removal and drainage systems to build a sponge-type rainwater management system.

Fully consider the characteristics of the park, and build a cost-effective sewage treatment system based on the principle of decentralization and concentration.

Combined with the construction of water supply, rainwater, sewage and reclaimed water system, by the regulation of the water ecological chain, a comprehensive water environment and water ecological system with purification capacity can be constructed.

Specific measures include: in the park, flushing, greening irrigation (except for special exhibiting plants), road sprinkling and landscape water use all non-traditional water resources; the rainwater in the park is basically discharged into the internal landscape water body; the grit chamber or ecological buffer zone is set before the rainwater enters the water body; the ecological drainage method such as ecological ditch is adopted; 100% ecological coastline; 100% river blue line demarcation; The internal sewage is completely collected and treated, and reused; the external sewage is purified by wetlands, etc.

**Resilience :** Public Participation: The Expo develops and launches mobile application service APP, which meets the needs of intellectualization in the era of mobile internet, and provides a direct experience interface between the intelligent Expo system and tourists. Service application is based on visitor mobile intelligent terminal. It integrates relevant functions and interfaces through user-friendly and visualized graphical interface, and provides visitors with an interactive interface to enjoy the experience and services of the Smart World Park.

Its development contents mainly include: propaganda portal integration; ticketing system integration; intelligent navigation integration; landscape interactive integration; VR World Park integration; tourist certification and interest management of scenic spots; tourist tour sharing; tourist tour interactive incentive service; emergency call rescue integration; park view submission, etc. To meet the needs of tourists in information acquisition, Park guide, landscape interaction, panoramic tour, social sharing, online ticket purchase, emergency help, and participation in park construction.

**Funds integration:** According to the Interim Measures for the Management of Incentive Funds for Green Eco-Demonstration Zone Construction by Beijing Municipal Finance Bureau, Beijing Housing and Urban-Rural Construction Committee and Beijing Planning Committee (Beijing Finance and Economics II [2014] 665), Beijing Green Eco-Demonstration Zone was awarded the title of "Beijing Green Eco-Demonstration Zone". The No. 3 project will be awarded 3 million yuan, and 2 million yuan will be awarded after the construction scale reaches 30%, totaling 5 million yuan. At the same time, Beijing will grant additional subsidies of 22.5 yuan per square metre for two-star and 40 yuan per square metre for three-star marking projects on the basis of the central reward fund for projects in the demonstration area. The subsidies are mainly used to subsidize green building consultation, construction incremental cost and energy efficiency evaluation.

Five million financial subsidies applied for Beijing Green Ecology Demonstration Zone are used to subsidize the incremental cost of green buildings and the investment of supporting capacity-building funds of about five million yuan. The incremental cost of green construction projects and the funds needed for supporting capacity-building can be solved by the construction units applying for special subsidies for green construction in Beijing, self-financing, market financing, bank loans and other ways.

**The whole process management method of project construction:** In order to accelerate the related work of Beijing World Garden Expo Green Ecology Demonstration Zone and form a unified command, clear responsibilities, strong coordination and efficient service guarantee system, the Beijing World Horticultural Exposition Coordination Bureau has offices, human resources departments, finance departments, management departments and assets. The management department, investment promotion and industry promotion department, cost management department, Park Development Department and planning and engineering management department shall clarify the responsibilities and detailed work contents of each department, organize the planning and implementation by the leading group, supervise the implementation of the planning tasks of the relevant departments, and be responsible for the evaluation, information dissemination and public participation and petition work of the construction.

The objectives of green building construction are subdivided into key work, innovation work and regular work. The Bureau of Coordination of Beijing World Horticultural Exposition Affairs centralizes to supervise and supervise the implementation of relevant departments involved in green building construction demonstration projects. On the other hand, we should strengthen the supervision of the construction process to ensure the progress and quality of the project.

Strengthen internal and external supervision in project organization and construction process, ensure organizational guarantee and technical support of project construction by establishing strict assessment and evaluation mechanism system internally, and realize the assessment and measurement of green building construction effect through external supervision scheme, so as to ensure the effect of "four saving and one environmental protection". Through multi-angle supervision and management, ensure the implementation effect.

#### **Responsible use of resources :**

A large number of vegetation and green ecological corridors in the park have the functions of protecting ecological diversity and carbon sinks, which can alleviate the heat island effect, change the wind speed and direction, prevent sand and conserve water, etc.

**Carbon sink statistics:** based on the Internet of Things technology, technology for real-time display of information such as biodiversity in the park and related data dissemination, at the same time, relevant statistics on the carbon sink of plant clusters and representative plants are carried out.

**Green transportation:** The transportation in the park adopts 100% green travel mode. The main means of transportation are bicycles and electric shuttle buses.

**Personal "carbon footprint":** The park introduces an international "carbon footprint" evaluation method based on humans, and collects carbon emission data on tourists' transportation, diet and garbage, and provides suggestions on carbon reduction behavior to guide people's low-carbon lifestyle.

**Establish a carbon emission statistical model:** introduce green design simulation display technology, and use relevant information technology to study the principle simulation and dynamic display system of the green building technology of the park, such as building energy conservation, water resource utilization, renewable energy utilization, park transportation, landscape road lighting, etc. At the same time, it covers the real-time display of water quality monitoring and situation distribution in the park, and carries out the relevant energy consumption and carbon emission reduction data display and release system.

**Optimizing energy consumption:** establishing intelligent energy consumption analysis management system, using remote transmission and other means to collect energy consumption data in time, realizing online monitoring and dynamic analysis of building energy consumption, and tapping energy saving potential.

**New building energy-saving ratio:** all new buildings in the park meet at least the design requirements of Beijing Green Building One-star, and the energy consumption design value is lower than the energy consumption value stipulated by the current Beijing energy efficiency standards. The energy saving ratio of new buildings is 100%.

**Energy cascade utilization:** vigorously develop new energy and renewable energy (using deep well geothermal, shallow ground temperature, water energy storage). In the feasibility study stage of the energy system, we predicted and analyzed the heat and cold load of major energy users, namely, China Pavilion, International Pavilion and greenhouses, gave full play to the concept of energy cascade utilization, and use geothermal heat as the main energy source to design an energy supply system.

**Renewable Energy:** the main exhibition halls in the park are the major energy users in the park, the replacement rate of renewable energy is more than 40%, and the replacement rate of renewable energy in the whole park is more than 25%.

The energy supply in the park has been rationally planned, and the use of renewable energy and multi-energy complementary energy forms have been used to provide cooling and heating for the park. Winter heating uses deep geothermal + shallow geothermal + water energy storage + peak-shaving boiler, and summer cooling uses shallow geothermal + water energy storage + peak-shaving electric cooler. The types of renewable energy used in the park are mainly solar energy, shallow geothermal energy, and biomass energy. Among them, there are two geothermal wells, and the method of cascade utilization is adopted. The deep geothermal water has a high temperature. The heat exchanger is used to directly exchange the secondary water to supply heat to the building, and then the heat pump unit is further used to extract the energy from hot water after the heat exchange. After the secondary energy is used, the geothermal water is recharged, and try to take heat as much as possible without taking water to protect the groundwater resources. The renewable energy utilization rate of energy stations in the

park is over 60%.

100% of large public buildings (≥20,000 m<sup>2</sup>) in International Horticultural Exhibition 2019 Beijing China reached Green building three-star standard, including China Pavilion, International Pavilion and Life Experience Hall.

China Pavilion: the land area is 48,000 m<sup>2</sup> and the total construction area is 23,000 m<sup>2</sup>. The upper roof is double-layered, the exterior is photovoltaic solar panels and hollow laminated glass, and the inside is ETFE membrane, which achieves standard for energy efficiency. Introducing authentic wind technology, the ventilation and energy saving measures that air cooling in summer and air heating using the heat storage capacity of shallow soil in winter can significantly shorten the air conditioner starting up time and effectively reduce the energy consumption of buildings.

International Pavilion: the land area is 36,000 m<sup>2</sup> and the total construction area is 22,000 m<sup>2</sup>. The International Pavilion is made up of 94 flower umbrellas, like a sea of flowers falling in the park. The design of the umbrella is not only beautiful, but also has the functions of sunshade, solar photovoltaic integration and rainwater harvesting, which effectively improves indoor lighting conditions, greatly enhances indoor natural lighting and light environment comfort, and achieves energy saving and water saving goals.

Life Experience Hall: the land area is 36,000 m<sup>2</sup> and the total construction area is 21,000 m<sup>2</sup>. Using grid-like street layout, modular building units and tall and square interior, it has strong variability and applicability in use, especially suitable for flexible adjustment according to the function needs during and after the events. At the same time, in order to meet the needs of the large span of the exhibition space, the design uses prefabricated steel frame structure system. The use of recyclable materials has achieved the goal of green material saving.

Domestic garbage production is about 26 tons / day during the event, domestic garbage production is about 12 tons / day during normal period. The garbage is relatively scattered and relatively concentrated in the exhibition halls and supporting buildings.

According to the goal of near zero discharge of solid waste and a resource utilization rate of not less than 90%, we set up classified waste bins and build closed garbage collection stations to concentrate domestic garbage in the corresponding areas in exhibition halls and supporting buildings, parks and open spaces; the kitchen waste is collected and stored separately; the garden garbage and feces are collected and transported.

The waste is closed transported by special vehicles and transported to the nearest solid waste treatment center for resource treatment.

## Testimony / Feedback

*The Expo is a multi-cultural exposition. The park planning is rooted in Chinese traditional culture, and has passed nearly three thousand years of gardening essence to show Chinese charm, Beijing characteristics and gardening characteristics. At the same time, focusing on the world's multi-cultural, open and inclusive attitude to gather the strengths of a hundred, for the world's horticulture to provide a competitive blooming stage.*

*The Expo of scientific and technological innovation. In cooperation with Zhongguancun Industry Alliance, it integrates high and new technologies such as intelligent terminal display, robot human-computer interaction, holographic projection and molecular breeding, enriches exhibition and Exhibition modes, provides rich and diverse interactive experience, and realizes the combination of tourism, learning and music. Make use of "Internet +", big data analysis and other advanced technical means to create wisdom world garden.*

*The Expo for ecological improvement. In line with the principle of optimizing the future ecological function, the sponge park is constructed by using advanced technical means such as recycling and economizing ecological water system and ecological wetland purification, and the species and quantity of plants are scientifically allocated to form a rich and diverse biological community.*

*The Expo for industrial development. Based on the utilization after the meeting, the development zone of horticultural industry is planned, and the frontier technologies and cultures of flower, fruit, vegetable, tea, medicine and other industries are centrally displayed, providing a platform for horticultural products trading and promotion, so as to effectively promote horticulture into the daily life of the public. Establishing the annual Beijing Flower Show brand, building kaleidoscope project, cooperating with the wide participation of the masses in the ice and snow movement brought by the successful bidding of the Winter Olympic Games, creating a new hotspot of all-weather golden tourism belt in Northwest Beijing, and driving green industries such as horticulture and tourism in Beijing, Tianjin and Hebei into a leapfrog development period.*

## Governance

Beijing International Horticultural Exhibition Coordination Bureau

**Holder Type** : Local Authority

In accordance with the approval of the Central Editorial Office for the Establishment of the **Beijing International Horticultural Exhibition Coordination Bureau** (No. 2, 2014) and the Notice of the General Office of the Beijing Municipal People's Government on the Establishment of the **Beijing International Horticultural Exhibition Coordination Bureau** (No. 15, 2014), the Beijing World Horticultural Exposition Coordination Office was established. Bureau (hereinafter referred to as World Park Bureau). The World Horticultural Bureau is the office of the Executive Committee of the Beijing World Horticultural Exposition, China (hereinafter referred to as the Executive Committee) in 2019. It is an independent business legal person. Under the authorization of the Executive Committee and the Municipal Government, the Bureau undertakes the daily work in the preparation and hosting of the 2019 Beijing World Horticultural Exposition (hereinafter referred to as the World Horticultural Exposition).

(1) To be responsible for the relevant legal affairs of the Expo;

(2) To organize and study the impact of the World Garden on regional economic and social development and make policy recommendations;

(3) To be responsible for the organization, coordination and operation management of the planning and construction of the Expo Park;

(4) To be responsible for coordinating and promoting the planning and construction of major infrastructure related to the World Expo;

(5) To organize and carry out investment invitation, promotion and public propaganda; to be responsible for the organization, management and coordination of market development related to the World Expo;

(6) Responsible for liaison and coordination with the International Exhibition Bureau, the International Association of Horticultural Producers and the Office of the Contact Group of the Organizing Committee of the World Horticultural Exposition, the Special Working Group of the Executive Committee of the World

Horticultural Exposition and the Preparatory Leading Group of Yanqing County;

(7) To urge the implementation of the matters agreed upon by the Organizing Committee and undertake the daily work of the executive committee.

**Business Model :** Public Participation: The Expo develops and launches mobile application service APP, which meets the needs of intellectualization in the era of mobile internet, and provides a direct experience interface between the intelligent Expo system and tourists. Service application is based on visitor mobile intelligent terminal. It integrates relevant functions and interfaces through user-friendly and visualized graphical interface, and provides visitors with an interactive interface to enjoy the experience and services of the Smart World Park.

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## Sustainable Solutions

ecological priority, learning from nature; inheritance of culture, openness and inclusiveness; scientific and technological wisdom, fashion diversity; innovation and sustainable use

**Description :** People-oriented Expo. This Expo highlights the experience of shade tourism. Design gardening shade parking lot, waiting security area under the forest, design shade landscape Avenue in the main tourist line, provide all kinds of shade space. Planning 8 kilometers long eco-leisure zone of the Gonghe River to form natural forest oxygen bar.

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- o Governance :
- o Quality of life :
- o Mobility :
- o Economic development :
- o Resources :



- Biodiversity :
- Energy/climate :
- Promotion of cultural/ historical identity
- Security
- Air quality
- Noise exposure
- Business development
- Business parks
- Circular economy
- Soft transportation
- Collaborative transportation
- Electric vehicles
- Parking management
- Infrastructure
- Digital services
- Water management
- Soil management
- Waste management
- Citizen-awareness
- Management of natural areas
- Environmental charter
- Climate adaptation
- Renewable energies
- Urban Lighting
- Low-carbon materials/ infrastructure
- SmartGrids

## Contest

### Reasons for participating in the competition(s)

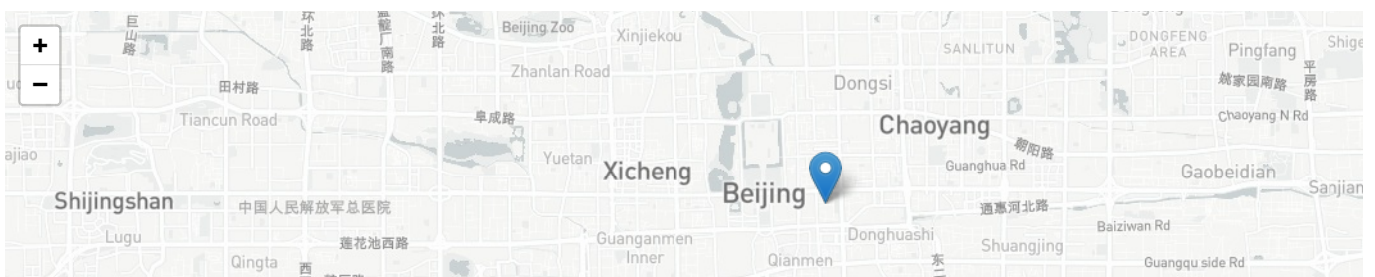
People-oriented Expo. This Expo highlights the experience of shade tourism. Design gardening shade parking lot, waiting security area under the forest, design shade landscape Avenue in the main tourist line, provide all kinds of shade space. Planning 8 kilometers long eco-leisure zone of the Gonghe River to form natural forest oxygen bar.

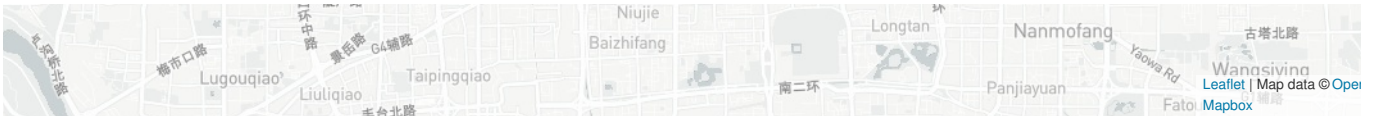
The Expo is a multi-cultural exposition. The park planning is rooted in Chinese traditional culture, and has passed nearly three thousand years of gardening essence to show Chinese charm, Beijing characteristics and gardening characteristics. At the same time, focusing on the world's multi-cultural, open and inclusive attitude to gather the strengths of a hundred, for the world's horticulture to provide a competitive blooming stage.

The Expo of scientific and technological innovation. In cooperation with Zhongguancun Industry Alliance, it integrates high and new technologies such as intelligent terminal display, robot human-computer interaction, holographic projection and molecular breeding, enriches exhibition and Exhibition modes, provides rich and diverse interactive experience, and realizes the combination of tourism, learning and music. Make use of "Internet +", big data analysis and other advanced technical means to create wisdom world garden.

The Expo for ecological improvement. In line with the principle of optimizing the future ecological function, the sponge park is constructed by using advanced technical means such as recycling and economizing ecological water system and ecological wetland purification, and the species and quantity of plants are scientifically allocated to form a rich and diverse biological community.

The Expo for industrial development. Based on the utilization after the meeting, the development zone of horticultural industry is planned, and the frontier technologies and cultures of flower, fruit, vegetable, tea, medicine and other industries are centrally displayed, providing a platform for horticultural products trading and promotion, so as to effectively promote horticulture into the daily life of the public. Establishing the annual Beijing Flower Show brand, building kaleidoscope project, cooperating with the wide participation of the masses in the ice and snow movement brought by the successful bidding of the Winter Olympic Games, creating a new hotspot of all-weather golden tourism belt in Northwest Beijing, and driving green industries such as horticulture and tourism in Beijing, Tianjin and Hebei into a leapfrog development period.





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