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## | Business Plan



### **The 12th National College Students' E-commerce "Innovation, Creativity and Entrepreneurship" Competition**

**Project Name: Simple Carbon - New Carbon Economy Service Platform**  
**-Build a bridge to connect individuals and enterprises for carbon asset circulation**

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# 1. Executive Summaries

## 1.1 Project Description

“Simplistic Carbon” is an APP project dedicated to personal and corporate carbon economy services, jointly founded by interdisciplinary talents from Beijing Normal University-Hong Kong Baptist University United International College (UIC). The project aims to explore the “Internet + Carbon Economy” service model and has independently developed a carbon footprint calculation and rating system. In the initial stage, it will provide a one-stop low-carbon consumption service for individual users to capture market share. In the intermediate stage, it will open up carbon trading, carbon monitoring, and other cloud services for high-energy-consuming enterprises. In the long term, it plans to join the carbon market block-chain construction through the CCER project (specific certification process see Appendix 1) and build a comprehensive carbon economy industry ecosystem driven by data. The project has already won the second prize in the 12th National College Students’ “Innovation, Creativity, and Entrepreneurship” E-commerce Competition and has gained recognition from professionals and investors in the carbon economy industry.

The project plans to establish JianCarbon Information Technology Co., Ltd. in September 2022 and aims to apply and settle in the Guangdong Zhuhai Public Entrepreneurship Base to complete the project incubation. The company’s vision is to “continuously innovate, integrate resources from universities and enterprises, tap into the low-carbon potential of individuals’ lives, and contribute to the country’s ‘dual carbon’ goals, allowing everyone to enjoy the benefits of the carbon economy under clear blue skies.



*Image 1 Guangdong Zhuhai Public Entrepreneurship Base*

## 1.2 Market Prospect

On September 22, 2020, Chinese President Xi Jinping first articulated the far-reaching vision of carbon peaking and carbon neutrality for China. The goal is to reach the peak of carbon dioxide emissions before 2030 and strive to achieve carbon neutrality by 2060 (referred to as the "dual carbon" target). According to publicly available data from the National Development and Reform Commission, there have been a total of 17 policies related to the "dual carbon" target. These policies include establishing a unified national carbon emissions trading market for enterprises and encouraging high-energy-consuming enterprises to undergo green transformation. At the individual level, local carbon-inclusive platforms will be established to incentivize low-carbon behavior through mechanisms that benefit individuals in general. However, there are many limitations to the development of the carbon economy sector at present.

Chart 1 Limitation Analysis

Field	Main part	
<b>B2C Individuals and Carbon Markets</b>	Government-led Carbon Inclusion Platform	<b>Lack of a rational and efficient individual carbon reduction incentive system:</b> Carbon emissions from personal consumption are characterized as "small, scattered and miscellaneous", and the carbon incentive mechanisms in various places are too simple, with a single channel for users to obtain "carbon credits", and ignoring the fact that consumers' demand for benefits is not high enough to meet their needs.
	Personal Carbon Exchange Trading	<b>Unable to participate in carbon trading:</b> The current national carbon market does not yet cover the individual level, i.e., individuals and households are not able to participate in trading in the national carbon market.
<b>B2B Corporate and Carbon Markets</b>	Corporate Carbon Trading	<b>Disadvantages of centralized trading:</b> Trading centered on exchanges, problems of data falsification, false trading, and regulatory opacity. Problems such as data falsification, false trading, and non-transparent supervision;  <b>Inequitable allocation of resources and oversupply:</b> The price of the carbon trading market is highly volatile, resulting in an oversupply when the price of carbon is too low, and the system of standards such as the method of allocating allowances in the various pilot carbon markets has yet to be harmonized.

To summarize, there is a lack of a service platform in the carbon market that integrates personal carbon assets and efficiently flows them to the enterprise side to meet the demand for corporate carbon emissions. Therefore, Simplistic Carbon APP is committed to building a B2B2C Green Mall of Simplistic Carbon and providing B2B full range of carbon services in stages within three years, so as to achieve the precise docking between the demand of carbon assets of enterprises and individual consumer

### 1.3 Product Overview

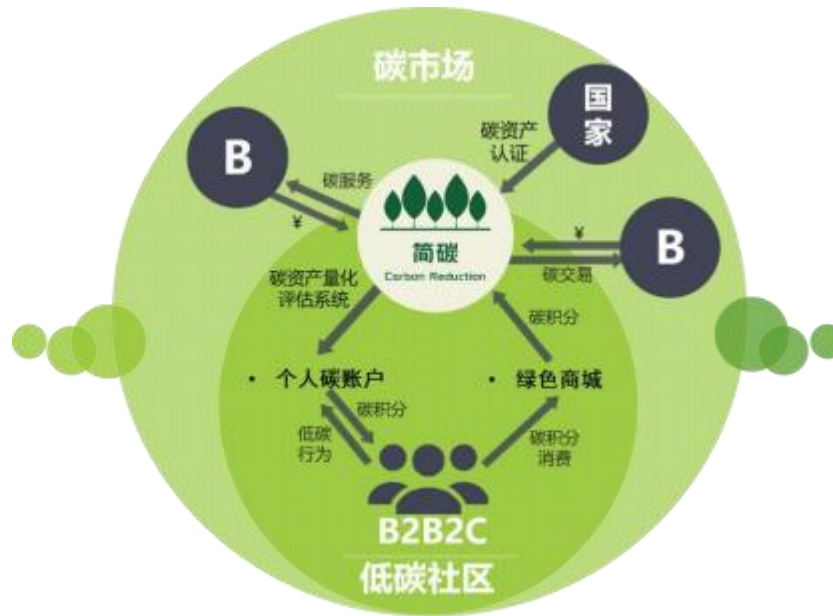


Image 1 Platform service model

With the increasing level of education and the growing desire among modern individuals to personally practice low-carbon behaviors and contribute to building a better home, the idea for the Simplistic Carbon APP was conceived.

Simplistic Carbon APP adopts a B2B2C model to create an online low-carbon community within the carbon market (as shown in Figure 2). It provides users with a one-stop platform for exchanging low-carbon information, focusing on filling the gaps in personal carbon emission reduction incentive systems and the carbon emission reduction needs of businesses transitioning to green practices. Building upon the carbon-inclusive mechanism, the app incorporates the development of a personal carbon asset credit system. This involves assessing low-carbon indicators across multiple dimensions of individual life, establishing a self-built system for quantifying personal low-carbon behaviors, and allowing users to consume carbon credits through an internal marketplace, thus achieving a positive closed-loop of widespread low-carbon benefits.

Once a certain amount of valid carbon assets have been accumulated on the individual end, the platform will facilitate the application for national CCER (carbon credits) project certification. This enables the transformation of personal carbon emissions into tradable carbon assets in the carbon market, providing efficient and trustworthy carbon trading services to enterprise users. The organic integration of top-down and bottom-up approaches in the development of both enterprise-level and individual-level carbon markets helps individuals and businesses alike achieve green and low-carbon transformations, ultimately constructing a low-carbon ecological chain.

## 1.4 Project Advantages



Image 3 Personal Carbon Credit Assessment System

As shown in Image 3, in order to encourage individual users to upload their carbon emission data, Simplistic Carbon has established a personal carbon emission data evaluation system. Individuals can use carbon credits to redeem goods in the Simplistic Carbon marketplace. To comprehensively and objectively evaluate individuals' low-carbon emission behaviors and establish virtual carbon assets, we employ Analytic Hierarchy Process (AHP), Principal Component Analysis (PCA), and carbon emission factors specified in the British Standards Institution (BSI) PAS 2050 to determine the importance of various behaviors in our carbon credit evaluation model. Furthermore, to further improve the evaluation model, we will continue to refer to scorecard models in machine learning to assign weights to carbon behaviors, creating a comprehensive, fair, and reasonable indicator system. The evaluation covers four aspects: household life (electricity usage, gas consumption, waste management, etc.), transportation (car usage, walking, public transportation, etc.), single-use products (disposable utensils, plastic bags, etc.), and consumption habits (meat consumption, grain consumption, clothing, etc.), with a total of 15 indicators.

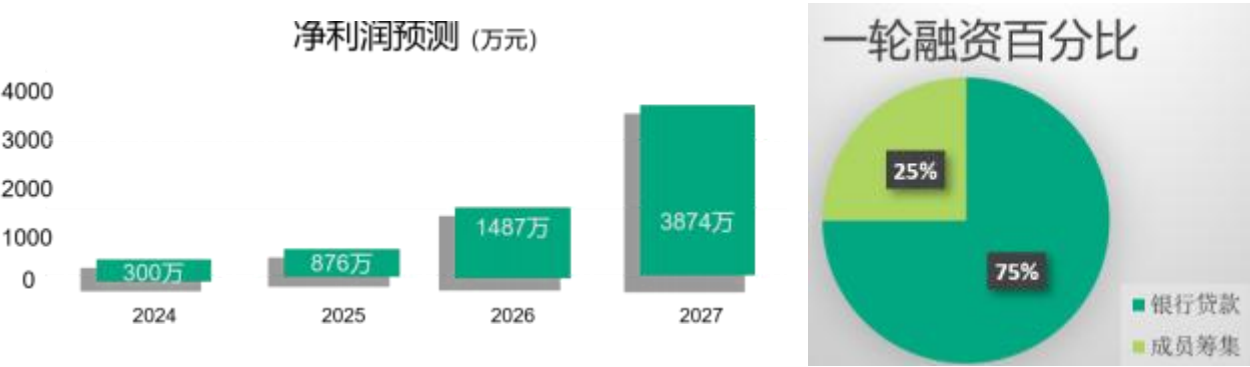


Simplistic Carbon APP utilizes a bottom-up carbon footprint calculator (Appendix 6) to calculate the user’ s carbon emissions. When users upload their personal carbon emission data, the calculator aggregates and sums up the data.

Furthermore, Simplistic Carbon APP will obtain CCER project certification through a process involving project design documents, project examination and approval, and project registration, among others. This allows idle personal carbon assets to be transformed into tradable carbon assets. To ensure the security of transactions between Simplistic Carbon APP and enterprises, blockchain technology is leveraged for data storage, sharing, distribution, tamper resistance, privacy protection, and digital contracts. These six core features ensure that the enthusiasm of participants is not worn down due to data loss or other issues, and enable relatively comprehensive risk control. MySQL is utilized as the backend database for the Simplistic Carbon APP to ensure data security and efficiency.

In terms of inclusivity, unlike traditional local carbon inclusivity projects that only focus on cheap daily necessities, Simplistic Carbon APP integrates carbon inclusivity with organic agricultural e-commerce. The internal “Simplistic Carbon Marketplace” provides users with discounts on sustainable organic agricultural products, truly bringing low-carbon benefits into action.

1.5 Finance & Treasury



As shown in the figure, the net profit from 2024 to 2027 is on the increase and the market is expanding. The first round of financing consists mainly of bank loans and self-financing by the team, of which RMB 3 million is expected to be bank loans and RMB 1 million is expected to be self-financing by the members. The second and third rounds of financing are expected to be introduced in the future after the project has stabilized its income.

## 2. Market Research

### 2.1 Macro-environmental Analysis

	Policy 政策	Economy 经济	Social 社会	Technology 技术
2011. 11	发改委下发《关于碳排放交易试点工作的通知》	1. 收入水平：2021年，我国城镇居民人均可支配收入达到了47412元；	1. 低碳意识：公众对“低碳”的熟悉度和认同度都很高；	1. 数字技术：公众对“低碳”的熟悉度和认同度都很高；
2014. 5	7个试点省市碳排放交易所开放：北京、天津、上海、重庆、湖北、广东、深圳	2. 社会资本：以补贴的形式鼓励企业发展低碳技术。	2. 绿色消费理念：全国已累计创建绿色商场500多家。2021年“双11”期间，购买绿色商品的消费者数超过3.8亿人，90后消费者以41%的占比成为“环保购”的主力军。	2. 大数据与区块链：新技术应用于碳市场的排量计量方面，提供数据支撑，提高碳市场的可信度与透明度。
2020. 12	生态环境部发布政策：发电行业率先启动全国性碳交易市场体系建设	3. 经济形势：2021国内生产总值1143670亿元		
2021. 7	全国统一的碳交易所正式上线，加速中国企业级碳交易的发展			

Image 4 PEST Macro-political analysis

With the signing of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and the Kyoto Protocol in 1997, countries all over the world began to pay attention to carbon emission reduction and formulated "carbon neutral" plans (see Appendix 2), which greatly facilitated the development of the global carbon emission trading market. As shown in Figure 3, China, as a developing country, is not legally bound to reduce the absolute total amount of GHG emissions, but as the world's largest GHG-emitting country, the government has introduced various policies to accelerate the comprehensive construction of the carbon trading market since 2014, from the setting up of pilot regions to build a regional carbon market, to the establishment of the basic framework for a nationwide unified carbon emissions trading market, to the official launching of the online trading of the national carbon emissions trading market in July 2021, which will be the first time that the carbon trading market is officially launched in the world. From the establishment of pilot regions to build regional carbon markets and the basic framework of a nationwide unified carbon emissions trading market, to the official launch of the national carbon emissions trading market in July 2021, the carbon trading market system will be continuously improved. As people's living standards continue to improve, the public's demand for quality of life is also gradually rising, and they are more willing to spend time and energy on understanding and practicing low-carbon life and



carbon reduction behaviors (see Appendix 3 for the survey questionnaire). In addition, social capital has accelerated the development of the carbon market. In recent years, China has encouraged enterprises to develop low-carbon technologies through subsidies. In recent years, China has encouraged enterprises to develop low-carbon technologies by subsidizing them, so that low-carbon technology enterprises can obtain more opportunities and markets, and attract more participants to the carbon market.

The public is very familiar with and agrees with the term "low carbon", and tends to make changes in their lives through actions rather than lectures. With China's emphasis on environmental management and the popularization of environmental protection and low-carbon concepts in recent years, the public's enthusiasm for the consumption of low-carbon products and the practice of low-carbon behaviors has risen. At present, the market share of green and low-carbon products has increased significantly, and the green transformation of consumption in key areas has achieved obvious results. The market share of green and low-carbon products has increased significantly, and the green transformation of consumption in key areas has achieved obvious results, and green consumption methods have been generally implemented, with a green, low-carbon and recycling development of the consumption system taking initial shape.

## 2.2 SWOT Analysis

Chart 2 SWOT Analysis

	<b>S Internal Strengths:</b> <ol style="list-style-type: none"> <li>1. Convenient operation, with services provided by mobile APPs and small programs</li> <li>2. Fully utilizing the carbon benefit mechanism to put the benefits into practice and stimulate green consumption of users</li> <li>3. Directly connect with the carbon trading market, enterprises can trade on the platform. Obtain CCER certification to increase users' recognition of the platform</li> </ol>	<b>W Internal Weaknesses:</b> <ol style="list-style-type: none"> <li>1. Need to collect relevant data, which is difficult to practice</li> <li>2. A third party carbon trading organization with low market attractiveness in the early stage</li> </ol>
<b>O External Opportunities:</b> <ol style="list-style-type: none"> <li>1. Large gap in the personal carbon asset trading market</li> <li>2. National policies support the development of the personal carbon trading market</li> <li>3. Exploration of green finance and provision of green finance loans by banks</li> <li>4. The blockchain carbon market system is expected to be put into practice</li> </ol>	<b>SO Strengths &amp; Opportunities:</b> <ol style="list-style-type: none"> <li>1. Relying on policies and government resources for publicity</li> <li>2. Assisting the development of the platform's green mall through appropriate banking services</li> <li>3. Make full use of carbon emission reduction and provide new channels for enterprises to purchase carbon emissions.</li> <li>4. Incentive policies for personal carbon assets to guide users to participate in carbon emission reduction.</li> <li>5. Utilize the Internet for promotion</li> </ol>	<b>WO Weaknesses &amp; Opportunities:</b> <ol style="list-style-type: none"> <li>1. Utilize the Internet for data collection</li> <li>2. Increase market promotion, establish a unique market, and improve user stickiness with practical incentives</li> </ol>
<b>T External Threats:</b> <ol style="list-style-type: none"> <li>1. Low public acceptance may occur.</li> <li>2. Increased number of similar platforms and fierce competition after the restart of the CCER program</li> </ol>	<b>ST Strengths &amp; Threats:</b> <ol style="list-style-type: none"> <li>1. Continuously improve according to the market and our own advantages.</li> <li>2. Improve the Green Mall and adjust the incentive policy according to the market.</li> <li>3. Flexibly utilize our own advantages to innovate contents and services.</li> </ol>	<b>WT Weaknesses &amp; Threats:</b> <ol style="list-style-type: none"> <li>1. Actively accept market feedback, and make timely adjustments to the platform content segmentation, simplify the operational difficulties</li> </ol>

## 2.3 Carbon Market Status & Competitor Analysis

### 1) Enterprise-level carbon trading market is large



Image 5 Carbon trading turnover, 2014-2022

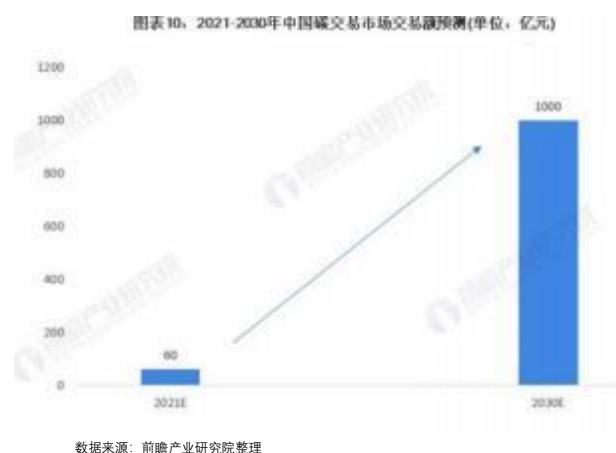


Image 6 China's Carbon Market, 2021-2030

As shown in Figure 5, the changes in the turnover of China's carbon trading market show that the turnover of China's carbon trading market in 2014-2020 shows an overall growth trend, and the turnover of China's carbon trading market in 2020 reached RMB 1.267 billion, a year-on-year increase of 33.49%, which is a new high in the turnover of the carbon trading market. The power generation industry became the first industry to be included in the national carbon market, with more than 2,000 key emission units in the power generation industry. According to the estimation of the Ministry of Ecology and Environment, the carbon emissions of the enterprises covered by the first batch of carbon market exceeded 4 billion tons of carbon dioxide, which means that China's carbon market will become a global carbon market. This means that China's carbon market will become the largest market in the world covering GHG emissions.

As shown in Figure 6, according to the market estimation, it is expected that the turnover of China's carbon market will reach 250 million tons in 2021, which is three times of the total amount of transactions in each pilot exchange in 2020, and the turnover amount will reach 6 billion yuan. With the introduction and implementation of a series of supporting systems such as the Interim Regulations on the Administration of Carbon Emission Trading, the coverage of China's carbon trading market will be gradually expanded in the future, and the cumulative trading volume may exceed 100 billion yuan by 2030, when the carbon peak is reached.

## 2) Large gap in the individual-level carbon trading market:

Recent studies have shown that individuals and households directly or indirectly contribute to 72% of global carbon emissions. At the national level, 35% of China's carbon footprint is related to household carbon consumption behavior, so reducing carbon emissions at the individual level is of great significance to efficiently achieve the "double carbon" goal. The market for individual-level carbon trading is still in its infancy, so its development is still to be explored.

## 3) The current state of the market for certified emission reduction (CCER) projects in the voluntary market: :

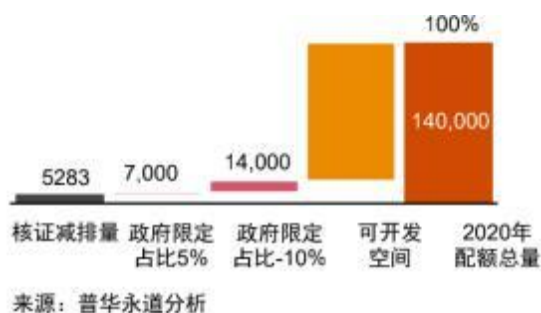


Image 7 Total actual emission reductions from the voluntary carbon market in 2020 (tons of CO<sub>2</sub> equivalent)

CCERs are used as a supplemental mechanism for the payment of allowances, offsetting part of the excess carbon emissions of enterprises to fulfill their compliance obligations. As shown in Fig. 7, according to the public data, the total amount of quotas in China's pilot market in 2020 will be 1.4 billion tons, and according to the policy limitation that the offset ratio of voluntary carbon trading will not exceed 5%-10%, the theoretical amount of voluntary trading that can be offset should be in the range of 0.7 billion-1.4 billion according to the amount of quotas issued in that year. At this stage, the amount of CCER issued is only 0.5 billion tons, less than 4% of the actual amount of issued quotas, and it is expected that there is a huge market space for CERs in the voluntary market.

#### **4) Competitive analysis of the Carbon P&P program :**

At present, the relevant government-led Carbon P&G programs have played a certain role in promoting carbon emission reduction among individuals, but there is still a certain gap between them and the formation of a sound individual-level carbon market. According to the actual pilot situation of local governments and enterprises, there are still some problems in the promotion of the carbon credit system, which are mainly reflected in the following four aspects:

##### **The scale of data is too large and management efficiency needs to be improved :**

The number of nodes of micro and small enterprises, communities, households, and individuals is too large for a carbon inclusive system in China, and a full-scale rollout will face a huge scale of data and high management costs.

##### **Data authenticity, security and traceability need to be enhanced :**

Although the popularization of mobile Internet has made the collection of personal data convenient, it is difficult to grasp the scale of data authenticity and privacy, and the traceability of data is difficult.

##### **Inadequate data identification and incentive redemption methods :**

How to convert low-carbon behaviors such as public transportation, walking, and tree planting into carbon credits is not yet mature. Most of the cities or companies that are currently implementing carbon credit pilot programs are focusing on the green mobility scenario, which is difficult to cover all scenarios of people's lives due to data limitations, and most of the programs that have been operating well have introduced external incentives from the market.

##### **The problem of "data silos":**

In the era of big data, enterprise user data is the core asset of enterprises, and if the data cannot be shared in a safe and reliable manner, it is difficult to quantify low-carbon behavioral data in a comprehensive and convenient way.

Therefore, how to deal with the above issues is key to the roll-out of the carbon GSP.

## 3. Product

### 3.1 Product Functions

First of all, the login page is the first page that users see when they open Simplistic Carbon APP, and users can register and sign the user agreement by binding their cell phone numbers. After entering the registration page, users can select "Personal" or "Enterprise" to login to their homepage, so that they can start the service experience and receive the latest information on carbon economy.



*Image 10 Simplistic Carbon APP Login Page*

Home page is the default interface after entering the APP, which is mainly to guide the personal end or enterprise end to discover the main functions of the APP, and at the same time, it can also integrate the rest of the various functions of the APP, provide users with a direct and effective information portal, and improve the experience of use.



### 3.1.1 Personal Side

#### 1) Functions

The personal end of "Simplistic Carbon APP" is based on a perfect carbon benefit mechanism system, from the record and audit of personal carbon emission reduction behavior, generation of carbon credits, settlement of personal carbon assets, and consumption of carbon credits (realizing agricultural products benefits). It also establishes a centralized database based on this closed-loop system, realizes communication and interaction among users, activates the internal ecology of the product, and achieves data aggregation and operation as well as security maintenance.

**Home page:**



*Image 11 APP Home Page for Personal Side*

In the home page of personal terminal, it consists of three parts: "(Carbon Center) Home", "Low Carbon Information" and "My", "Home" mainly shows the major functional sections of the personal terminal, which is convenient for users to use. The "Home" section

mainly displays the major functional sections of the personal side, which is convenient for users to use; the "Low Carbon Consultation" section mainly displays news and information related to the carbon economy, including "Carbon Trading" and "Carbon Finance", which is convenient for users to learn about the carbon economy, including "Carbon Trading" and "Carbon Finance". "Low Carbon Consulting" mainly displays news and information related to carbon economy, including "Carbon Trading" and "Carbon Finance", which is convenient for users to understand the real-time updated industry news. "My" is the user's personal center, which allows users to view their carbon credit accounts, the latest community news, details of the platform's latest activities and feedback.

## **2) "Carbon Simplified Living" Module**

Clicking on the "Low Carbon Travel" section on the homepage of the personal terminal will lead you to the section. The "Low Carbon Travel" section covers all behaviors related to carbon emissions in clothing, food, housing and transportation, and collects and integrates data through user's cell phone authorization and automatic uploading of user's data, and produces user's carbon reduction data of the day after entering into the database, accounting and auditing, etc., and determines whether the user meets the standard of carbon reduction of the day or not by verifying user's carbon reduction data of the day through the quantitative assessment system. The quantitative evaluation system verifies the user's carbon reduction data and determines whether the user meets the carbon reduction standard of the day. If the user meets or exceeds the carbon reduction standard of the day, carbon points will be issued to the user's carbon account in accordance with the Carbon Points Reward Issuance Regulations; if the user fails to meet the carbon reduction standard of the day, no carbon points will be issued. Users accumulate carbon credits (virtual currency set by the platform) according to the rules of "Simplistic Carbon APP" to accumulate their personal carbon assets and form a unique carbon account. Users accumulate carbon points (virtual currency set by the platform) according to the rules of "Simplistic Carbon APP" and accumulate personal carbon assets to form a unique carbon account. For details of the interface and process, please refer to Appendix 4 and 5.

### **3) "Carbon Simplex Mall" module**

After clicking "Carbon Simplex Mall" on the homepage, users will be redirected to the internal green and organic agricultural products mall of the platform. Users can redeem the carbon points accumulated through low-carbon travel and low-carbon life for corresponding mall coupons, and consume carbon points. The "Carbon Simplex Mall" consists of four main sections: homepage, classification, shopping cart and my. The homepage interface is convenient for users to check the high-quality merchants or high-quality products that have been screened by the platform; the classification interface allows users to quickly select their preferred products or merchants; the shopping cart interface allows users to select products or merchants by category; and the shopping cart interface allows users to select products or merchants by category. The classification interface allows users to quickly select the products or merchants of their choice; the shopping cart interface organizes the products that users want to buy in chronological order, which is convenient for users to pay and check; the my interface mainly contains personal coupon accounts, order details, purchase records and feedback, etc., which improves the shopping experience of users. See Appendix 5 for the detailed interface.

### **4) "Carbon Ranking" Module**

Individual users will enter the "Carbon Ranking" function page from the homepage. Carbon Ranking is a ranking of the accumulated carbon points of users within a given community. The platform has set up a carbon reduction ranking and reward system for individual users, which rewards users with corresponding carbon points within a specified period of time, and produces real-time reports on the ranking of users. The purpose of "Carbon Simple Ranking" is to encourage users to actively participate in carbon emission reduction, forming a benign low-carbon competition atmosphere; and when necessary, the platform organizes community activity days to activate platform users and increase user stickiness. Users can view the "Carbon Simple Ranking" to compare the carbon points accumulated by users in the same community in real time, and make personalized carbon reduction plans in a timely and reasonable manner. For details of the interface, please refer to Appendix 5

## **5) "Carbon Community" Module**

"Carbon Community" is a user communication community established within the platform. In the community, there are many topics about life, food, and goodies, etc. Users can share their experiences through dynamic sharing or ordering agricultural products in the mall. Users will be rewarded with additional carbon points for posting content related to "low-carbon" living. In addition, the platform will reward users with a different number of carbon points based on the number of clicks, likes and followers of the content they post, and eventually all points can be exchanged for discounts in the mall, thus realizing the general benefits of low carbon. The platform will also regularly organize activities such as sharing of low-carbon goodies to establish an online community for low-carbon information interaction. At the same time, the platform will also introduce bloggers who promote low-carbon life to share their green living tips in the "Carbon Community", so as to maintain a steady growth in the stickiness of the platform's users and attract new users to join the "Simplistic Carbon APP". For details of the interface, please refer to Appendix 5.

## **6) "Carbon Academy" Module**

Individual users can enter the "Carbon Academy" function page from the homepage, through which users can obtain information on "carbon economy", "carbon finance", "carbon policy" and other low-carbon related terms and first-hand "carbon economy" news or policies in China and the world. Through the "Carbon Academy", users can get the popularization of low carbon related terms such as "carbon economy", "carbon finance", "carbon policy", etc., as well as the first-hand "carbon economy" news or policies in the country and the world. Users can also take the "Carbon Simple Course" and participate in quizzes on "Low Carbon Life", "Carbon Economy", "Carbon Neutrality" and other related topics. Carbon Neutrality", etc. Users can also participate in quiz activities related to "Low Carbon Life", "Carbon Economy", "Carbon Neutrality", etc., in exchange for carbon points as rewards. Simple Carbon APP aims to form a good culture of "understanding low carbon, learning low carbon and practicing low carbon" through the "Simple Carbon Academy". Through the "Simple Carbon Academy", the APP aims to create a good atmosphere of "understanding low carbon, learning low carbon and practicing low carbon", encourage users to put green life into practice, and advocate a new trend of green life.

### 3.1.2 Corporate



Image 12 APP Corporate Carbon Services

## **1) Functions**

The enterprise side of "Simplistic Carbon APP" is dedicated to establishing a credible carbon trading service platform. The functions of the enterprise terminal mainly include "carbon trading", "consultation and resource center" and "carbon monitoring cloud service", etc. Based on the blockchain carbon market system, it provides stable and efficient carbon trading and other services for enterprises as a third-party low-carbon financial service platform, as shown in Figure 12.

## **2) Carbon Trading**

The national authority allocates carbon emission quotas to enterprises through appropriate allocation principles, and enterprises formulate emission reduction targets and plans according to the characteristics of their industries, technologies and management styles. If their future carbon emissions are higher than their carbon allowances, they will need to purchase additional carbon allowances from the carbon trading market. "Simplistic Carbon APP" is dedicated to collecting and integrating personal carbon assets for enterprises, and emission control enterprises can purchase additional carbon allowances, i.e., over-allocated carbon allowances, from the Carbon Simple APP platform. The platform of "Simple Carbon APP" enables emission control enterprises to purchase additional carbon allowances, i.e. excess emission rights, that they need.

## **3) Resource and Counseling Center**

The enterprise terminal of "Simplistic Carbon APP" is updated daily with relevant information including "Carbon Morning News", "Carbon Market", "Carbon Circle", etc. Enterprises can use the consultation channel of Simplistic Carbon Platform to learn about the carbon market mechanism and enterprise emission reduction plans. Enterprises can use the consultation channel of the Simplistic Carbon platform to learn about the carbon trading market mechanism and enterprise emission reduction planning and other related professional information. Enterprise users can receive the daily updated carbon reduction data and carbon market development trend from individual users through the Carbon Reduction Resource Center, so that enterprises can understand the latest industry news and increase user stickiness. See Appendix 5 for detailed interface.



#### 4) Carbon monitoring cloud services

The platform provides enterprise users with a comprehensive and efficient cloud service of carbon emission detection system in the office area, through monitoring activities such as water and electricity, production materials, garbage, and employee travel and commuting in the office area of the enterprise, to provide reasonable emission reduction solutions for the enterprise. The system combines the uploading of user data and some automated means to provide the Group with suggestions on carbon emission management. It also embeds the underlying calculation of carbon emissions data for accurate corporate carbon accounting. In addition, our platform also provides decision makers with an interface to visualize carbon emissions data, making it easy for them to understand the carbon emissions of each region of the company. Secondly, we will use carbon accounts as the main form of realization, covering the common low-carbon scenarios of employees in energy-consuming enterprise campuses. Scenarios such as paperless office, efficient booking and use of meetings, reduction of food waste and low-carbon commuting will be implemented to achieve comprehensive and efficient carbon management. In addition, the existence of carbon accounts provides an opportunity for energy-consuming companies to provide a system of points exchange for their employees. Each employee's low-carbon behaviors are recorded in detail, making it easy to incentivize them with good results.

### 3.2 Product Technologies

#### Software Structure :

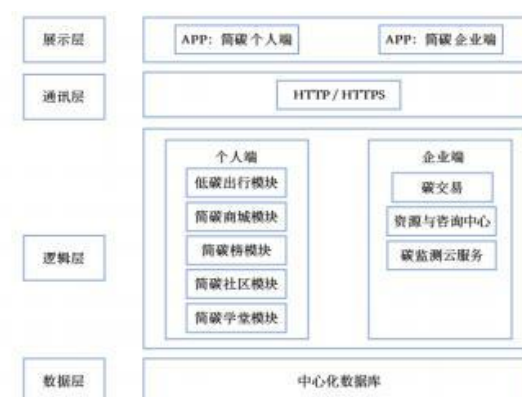


Image 13 Project technical structure

### **3.2.1 Database components**

#### **1) Database Entity Relationship**

By synthesizing, summarizing, and abstracting the various App entities, a conceptual model is formed that is independent of the specific DBMS, as shown in Figure 13. The conceptual model can be converted to a specific data model supported by a DBMS on a computer.

The database of Simplistic Carbon APP system contains four tables: user information table, enterprise information table, carbon assets table and agricultural products table. Agricultural products table.

#### **2) Functions of each entity**

The user information table mainly stores the user's ID, name, account number and password, which will be transferred to the cloud server through the App registration function. This information will be transferred to the cloud server through the App registration function.

The enterprise information table mainly stores the ID, name, account number and name of the enterprise, which is the same as the user registration function. This information will be transferred to the cloud server through the enterprise registration function.

The Carbon Assets table stores carbon credits on each user's account, which can be exchanged for a variety of agricultural products in the Agricultural Products table.

The Produce table contains the IDs, names, quantities, and carbon credits required to redeem the produce provided by the merchant.

The shopping cart table and the community table mainly store the information of the agricultural products that users have exchanged, as well as the data of users' evaluations, likes and favorites of the products, which is convenient for the platform to analyze the sales volume and users' preferences in the later stage, and to make product-related decisions for the decision makers.

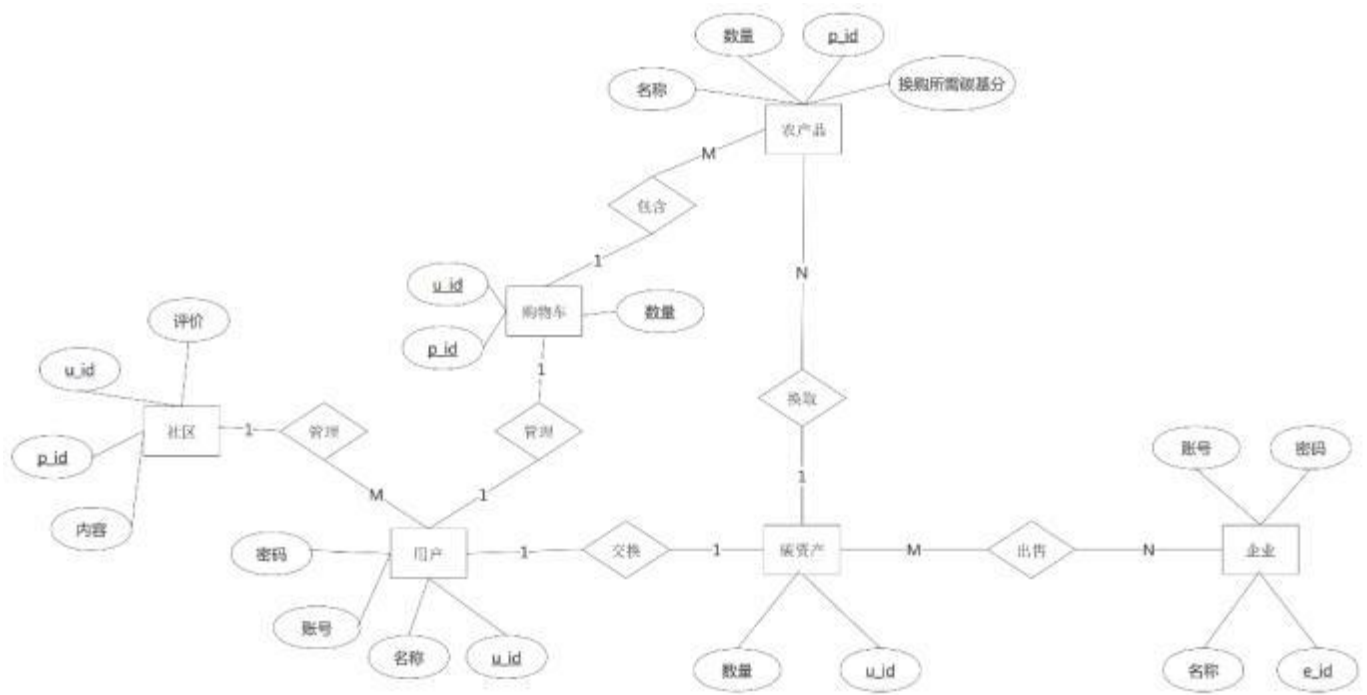


Image 14 Database Entity Connection

### 3.2.2 Blockchain components

**Carbon asset trading pool:**

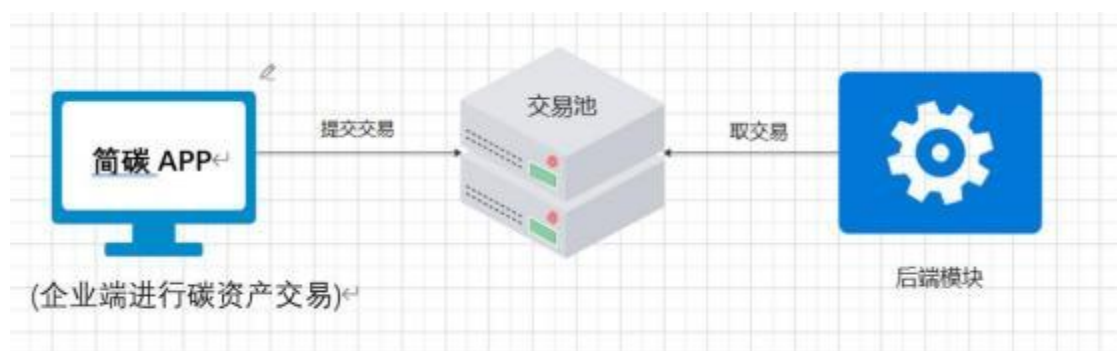


Image 15 APP Trading Pool

In the data layer blockchain module, the transaction pool is responsible for receiving and storing carbon transactions sent by the enterprise side of Simplistic Carbon APP, and at the same time, it should guarantee the quality of carbon transactions conducted by enterprises on Simplistic Carbon APP and verify the legality of carbon transactions. In order to prevent DOS attacks, the system limits the capacity of the transaction pool, and when the total number of carbon transactions in the pool exceeds the limit, the system will reject new carbon transactions sent by enterprise users of Simplistic Carbon APP.

### Functional Role:

Before a transaction is placed in the pool, the pool needs to check the validity of the transaction, which must meet the following criteria: 1) valid signature; 2) non-duplicate transactions; 3) not already on the chain.

Transaction Provider: Acts as a database to provide transaction "raw materials" to the back-end module;

Signature checking and anti-repeat: Provide block signature checking interface for the consensus module to verify only the missed transactions and improve the verification efficiency.

### 1) Future Blockchain Carbon Market Structure:

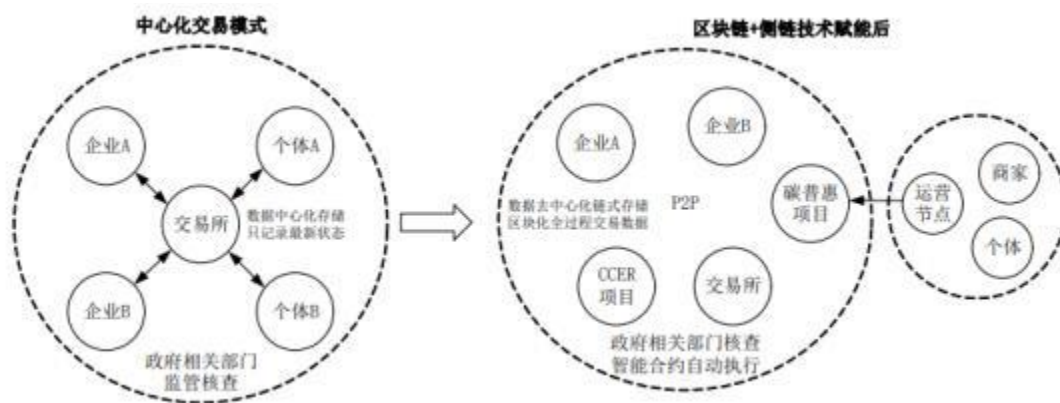


Image 16 Comparison between traditional centralized transaction model and "blockchain + sidechain" model

"Simplistic Carbon APP" is an innovative platform in the carbon market that integrates blockchain technology to enhance transparency and efficiency. By recording the entire process of issuing, reporting, and compliance with carbon quotas on a blockchain public chain, the app ensures data integrity and reduces the risk of false reporting and data manipulation. The tamper-proof and traceable nature of blockchain minimizes potential fraudulent activities and slashes the costs of data verification. As a result, Simplistic Carbon APP provides a trustworthy platform for carbon emission data and carbon asset trading, fostering a new low-carbon financial service. This platform supports the aggregation of individual carbon assets and their participation in carbon trading, benefiting both the production and distribution ends of the carbon market. Simplistic Carbon APP leverages blockchain to ensure credible recording of carbon credits for individuals and secure movement of carbon assets for enterprises, offering a secure, efficient, and cost-effective environment for carbon asset trading. Moreover, it addresses the issue of public chain congestion from personal carbon asset big data by facilitating the effective circulation of carbon assets between personal-level side-chains and enterprise-level public chains.

### **4.3.2 Personal carbon asset algorithm section**

#### **1) Individual Carbon Credit Evaluation Indicator System**

In order to make a comprehensive and objective evaluation of individuals' low-carbon emission reduction behaviors, so as to establish virtual carbon assets and build a "bridge" between enterprises and individual-level carbon trading, a comprehensive, fair and reasonable indicator system is the foundation for the establishment of the evaluation model. According to the principle of selecting evaluation indicators, which is to make the indicators comprehensive, independent and hierarchical, we analyze the behaviors of individuals that may affect carbon emissions from clothing, food, housing and transportation in daily life, and categorize them into four aspects, namely, family life, transportation, disposable commodities and consumption habits, with a total of 15 indicators, and adopt the hierarchical analysis method to obtain the weights of each indicator. Hierarchical analysis was used to obtain the weights of each indicator, see Appendix 6, and a comprehensive evaluation model of individual carbon points was constructed.

### Constructing the total score model:

$$y = \sum_{j=1}^{15} w_i x_{ij} \quad (i = 1, 2, \dots, 4; j = 1, 2, \dots, 15)$$

The above equation satisfies  $x_{ij} > 0$ . Where  $y$  is the individual carbon base score,  $w_i$  is the weight of each indicator in the individual carbon base score system;  $i$  is the category of each class in the first level of indicators,  $j$  denotes the activity of the substance or activity, and  $x_{ij}$  is the score of the  $j$  indicator in the  $i$ th category of the first level of indicators in the evaluation system.

## 2) Confirmation of evaluation indicator weights

The indicators in the evaluation index system reflect the characteristics and nature of individual carbon credits from different perspectives. After constructing the evaluation system, it is necessary to determine the importance of each indicator and apply the hierarchical analysis method to determine the weight of each indicator. According to PAS 2050-Specification for the assessment of the life cycle greenhouse gas emissions of goods and services developed by the British Standards Institution (BSI), the weights of the indicators are determined according to their importance. In the PAS 2050-Specification for the assessment of the life cycle greenhouse gas emissions of goods and services developed by SSI, we refer to the 9 importance levels and their assigned values given by Saaty et al.

Suppose a certain level contains  $m$  considerations  $c_1, c_2, c_3, \dots, c_m$ , with weight values of  $c_1, c_2, \dots, c_m$  respectively; and with  $n$  considerations  $S_1, S_2, S_3, \dots, S_n$  at the next level, the hierarchical weight values of each factor on the previous factor  $c_i$  are  $(s_{1i}, s_{2i}, \dots, s_{ni})^T$  ( $i = 1, 2, \dots, m$ ) respectively.

Among them, the importance of the primary indicators is proportional to the carbon emissions, and the secondary indicators are inversely proportional to the carbon emissions, so as to obtain the weights of the indicators of the personal carbon credit evaluation system as shown in Appendix 6.



### 3) Personal Low Carbon Behavior Record (PLBR) Mapping Criteria and Formulas

Currently, there are two main methods to estimate personal carbon footprint: Top-Down and Bottom-Up. Bottom-Up uses a carbon footprint calculator to estimate the carbon footprint of an individual based on his/her daily life behaviors such as household energy consumption, actual consumption and transportation. Simple Carbon APP adopts the Bottom-Up approach to measure users' carbon emissions. By using the Carbon Footprint Calculator, the carbon footprints of activities or substances are calculated based on the emission factors inputted by users, and then summed up to calculate the carbon footprints of the activities or substances. The Carbon Footprint Calculator calculates the carbon footprint of an activity or substance based on the emission factors entered by the user, and then sums them up.

As a result, data on the individual carbon emissions of the user's surplus or deficit can be obtained.

$$\text{Formula: } E_{\text{CO}_2} = \sum Q_i * c_i$$

Eco2 is the total carbon footprint,  $Q_i$  is the activity data for substance or activity  $i$ , and  $c_i$  is the carbon emission factor per unit (c02ep/unit), see Appendix 6 for detailed algorithms and codes.

## 4. Marketing Promotion

### 4.1 Personal Side Communication Strategy

#### 4.1.1 Target audience



Image 17 Target Population

The more educated people are, the more capable they are of acquiring low carbon and environmental protection information, the more knowledge they acquire about low carbon and emission reduction, the higher their level of environmental awareness, and the stronger their sense of environmental responsibility, which enables them to implement more low carbon and emission reduction behaviors, and the more they can participate in SimplifyCarbon's low carbon life actions. In the family, under the guidance of parents' environmental protection concepts such as low carbon emission reduction, the next generation will also have a certain foundation of environmental protection awareness, so that the next generation can form the concept of low carbon and environmental protection from childhood, which is consistent with the original purpose of CarbonSmart.

The rapid economic growth in the eastern and first-tier cities, and the heavier air pollution caused by carbon emissions from corporate production than in the central and western regions, have directly caused them to pay more attention to the environment and to raise their level of awareness and sense of environmental responsibility

#### **4.1.2 Product Strategies**

The positioning of the Simple Carbon Mall is to achieve a truly "visible" low-carbon universal benefit, so that individual users can obtain high-quality agricultural and sideline products at low prices through the Simple Carbon Mall. The agricultural and sideline products in the mall are selected from the organic agricultural bases of the Guangdong-Hong Kong-Macao Greater Bay Area Food Basket Project, covering 62 types of vegetables, 62 types of fruits and fruits, 17 types of livestock and poultry products, 17 types of beehive products, 10 types of aquatic products, 8 types of milk and dairy products, and 8 types of edible oils and oilseeds, with a total of 21,210 limited index values. All products in the mall are made of AA-grade green products. All products in the mall are packaged in AA-grade green packaging, such as corrugated paper and biodegradable plastic bags, and are designed without labels to reduce environmental pollution.

#### **4.1.3 Channel Strategies**

Individual users can upload their personal carbon emission data, authentication, carbon credit exchange, shopping in mall, community exchange, etc. on the Simplistic Carbon APP. In order to facilitate the use of personal users, Simplistic Carbon APP expects to launch a small program on the personal side within 3 years. Personal program is expected to be launched within 3 years, where personal users can upload personal carbon footprint data quickly.

Carbon Mall will cooperate with SF to reduce carbon emissions through the application of science and technology, upgrading of transportation and business model, and purchase of carbon offset credits, etc. SF will provide third-party outsourcing logistics services for the green organic agricultural products of Carbon Mall to ensure the freshness and quality of the mall's organic agricultural products, which will form a two-way reciprocal benefit.

#### **4.1.3 Promotional Strategies**

"Simplistic Carbon APP" upholds the concept of allowing individual users to voluntarily and happily reduce emissions and enjoy the fun of emission reduction, and will carry out different activities for individual users and household users, so that individual users can experience the benefits and fun of emission reduction.

## **1) Offline Activities**

The "Weekend Eco Bazaar" is aimed at individual and household users. It set up booths for "recycling and secondary creation", trading of unused items, bring your own cup of coffee, environmental protection knowledge quiz, and exchange of Carbon Credits for commodities. Through this offline activity, we enhanced the environmental protection and low-carbon awareness of individual users, and let them experience the process of increasing their carbon points and exchanging them for commodities through their own emission reduction behaviors, so as to increase the user experience and raise the popularity of "Simplistic Carbon APP".

"Low Carbon Ride" for individual users. The activity is a public welfare competition, with "low carbon knowledge stations" set up along the track. Users can double their personal carbon points after uploading their cycling data to the app on the same day, and additional carbon points will be awarded by ranking the number of correct answers to the questions at the knowledge stations, which can be exchanged for goods. Through this activity, we can cultivate users' awareness of environmental protection and low carbon emission reduction, expand the number of users, and increase awareness.

"Family Summer Camping Program" for family users. Organize outdoor parent-child activities such as collecting lawn plastic bottles and "parent-child diy", providing all-vegetarian delicious meals and low-carbon mini-classroom activities. Allow parents to bring their children to participate in the program, cultivate children's awareness of low-carbon environmental protection, and also better inspire parents' sense of environmental responsibility.

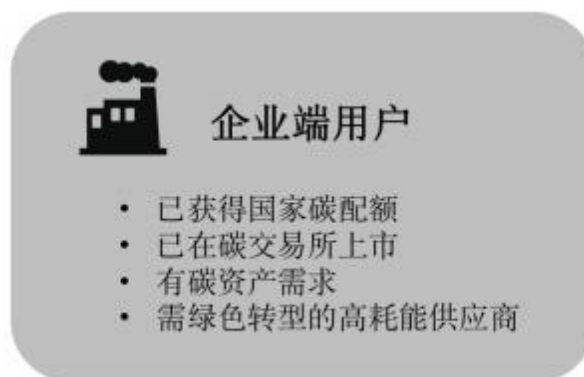
## **2) Online Activities:**

"Simplistic Carbon APP" is an innovative platform in the carbon market that integrates blockchain technology to enhance transparency and efficiency. By recording the entire process of issuing, reporting, and compliance with carbon quotas on a blockchain, the app ensures data integrity and reduces the risk of false reporting and data manipulation. The tamper-proof and traceable nature of blockchain minimizes potential fraudulent activities and slashes the costs of data verification. As a result, Simplistic Carbon APP provides a trustworthy platform for carbon emission data and carbon asset trading, fostering a new low-carbon financial service. This platform supports the aggregation of individual carbon assets and their participation in carbon

trading, benefiting both the production and distribution ends of the carbon market. Simplistic Carbon APP leverages blockchain to ensure credible recording of carbon credits for individuals and secure movement of carbon assets for enterprises, offering a secure, efficient, and cost-effective environment for carbon asset trading.

## **4.2 Corporate-side Publicity Strategy**

### **4.2.1 Targeted Users**



### **4.2.2 Advocacy strategy**

We mainly place advertisements and leaflets on relevant enterprise forums, and place link advertisements on online carbon trading platforms to promote our services. In the early stage, we mainly provide customized green transformation solutions for energy-consuming enterprises, helping them to carry out carbon emission testing, carbon accounting, carbon target setting, dismantling and implementation services, and providing a full set of customized transformation solutions for energy-consuming enterprises, ranging from personal carbon emissions of employees to carbon emissions of factories, in order to attract users on the enterprise side.

## **5. Corporate Operation**

### **5.1 Strategic Plans**

#### **5.1.1 Establishment of a comprehensive operation system**

##### **1) Establishment of a sound R&D system**

At present, the core feature of our company is to build a carbon market that combines enterprise-level and individual-level. The depth of application far exceeds that of other counterparts, truly realizing the closed loop of carbon assets and carbon market and carbon benefits, and forming certain technical barriers. The Company will establish a perfect R&D system, extensively introduce talents in carbon economy application and blockchain R&D, devote themselves to R&D, give full play to the advantages of discipline integration, continuously explore other fields of carbon economy market, and optimize and improve the functions of the platform.

##### **2) Establishment of a sound operating system**

The Company will establish a systematic operation system, and request the functions of each department to perform their respective duties, taking the employee code, personnel management system, promotion management system, performance management system, administrative management system, file management system, meeting system, research and development management system, financial management system and so on as the gripping hand to do a good job of operation management of the Company, and to maintain a good internal operation of the Company.

##### **3) Building a first-class management team**

A first-class management team plays an important role in continuously promoting the development of the Company. The Company will improve the construction of the management team and build a management team consisting of the general manager, the directors of the administration department, the operation department, the marketing department and the



research and development department, and will strictly control the quality of talents in the management team so as to promote the overall management and planning of the Company with excellent management talents.

#### **4) Establishment of a specialized after-sales department**

As a service platform builder, our company provides one-stop solutions for individuals and enterprises in carbon trading. In order to help users to be more skillful in using our platform, improving after-sales service is also one of our main focuses. As a B-side oriented enterprise, we will establish perfect enterprise access standards, provide standard guidelines for enterprises and individual users, and set up a professional after-sales service team to provide after-sales service for the operation of the whole platform. At the same time, we will send our technical staff to communicate with government departments related to carbon economy and carbon emission reduction on a regular basis to maintain continuous follow-up and maintenance of the platform.

#### **5) Establishment of a specialized team of carbon management-related personnel**

Carbon emission related management personnel need to conduct comprehensive statistics and accounting of GHG emissions and related information of emission units in accordance with GHG emission accounting methodology and reporting guidelines of various industries, as well as relevant standards and technical specifications, and prepare true, complete and accurate GHG emission reports. It is necessary to familiarize with the accounting procedures, including the establishment of an accounting working group, the determination of the accounting boundary, the identification of emission sources and gas types, the identification of carbon source flows and their categories at the boundary of inflows and outflows, the collection and acquisition of activity level data, the selection and acquisition of emission factor data, the calculation of emissions, the preparation of an accounting report, and the submission of the accounting data and information, etc.

### **5.1.2 Phased strategy development**

#### **1) Pre-planning 1-2 years**

##### **Developed and stabilized the Guangdong market**

This is the initial stage of the project development and the early stage of the enterprise's development. In addition to obtaining CCER certification from the government and third-party certification organizations, the project is expected to open up the market in Guangdong Province by building software, marketing, and financing.

In terms of software architecture, it is expected to take 4-5 months to develop the software and set up the database. The pilot phase of the platform will take place in the sixth to ninth months after the software structure has been completed.

In terms of marketing the platform, the timing is consistent with the software development period. Online, the platform is promoted through IP implantation and advertisements on social media platforms, and offline, a part of the customer base is built up through cooperation with relevant enterprises. Specifically, on the personal side, we negotiated with Industrial Bank for a personal carbon asset co-branded card, so as to enhance the public's awareness of carbon reduction behaviors and enjoy the benefits of carbon benefits; on the enterprise side, we provided carbon consulting and carbon testing services for the target enterprises, and established a cooperative relationship with them. When the country reopens the CCER program, the platform will immediately bridge the carbon assets between the individual and enterprise ends to realize carbon trading. In the course of development, we will continue to modify the program based on market feedback. In the process of development, we will constantly modify the program according to the market feedback, so as to provide better carbon benefits for individuals and related carbon services for enterprises.

In terms of financing, we plan to obtain funds through equity financing at this stage. In the early stage of development, we will invest a lot of money in software construction and testing and user promotion, in order to ensure the smooth operation of the system at the same time, to consolidate a certain amount of users, and constantly expand the market for the subsequent development of good preparation.

## **2) Mid- to late-stage planning 3-5 years**

### **Commitment to new markets and businesses**

After the stabilization of the enterprise's capital chain, we will introduce more green and low-carbon products to develop a larger green consumer market. We will try to go out of the Pearl River Delta, expand the market layout to the Yangtze River Delta, Beijing, Tianjin, Hebei and other large metropolitan areas, to promote low-carbon life services, and at the same time to introduce more green products, to help enterprises in the green low-carbon transformation, and to jointly contribute to the green environmental protection.

At this stage, "Simplistic Carbon APP" plans to join hands with "Guangzhou Huion Environmental Protection Technology Co., Ltd." to jointly launch the sales service of self-developed environmental protection water treatment equipments, and make more efforts to practice carbon emission reduction and contribute to the society's environmental protection with technological innovation. The new technology will be used to make profit for the platform and contribute to the environmental protection of the society. See Appendix 7 for product patents and partner companies.

In order to give back to the society and show the sense of corporate social responsibility, the company will carry out public welfare activities related to carbon reduction.

## **5.2 Corporate structures**

The Company will be positioned as a large-scale software service platform developer focusing on the carbon economy industry. As the Company's business, capital and returns will vary in different stages of development, the organizational structure of the Company will not be static, nor will it be practical to adopt the "three-tier model" management system at any stage of maturity. Therefore, the company's organizational structure is not static, and it will not be unrealistic to adopt the "three-tier model" management system of the mature stage at any stage. At different stages of the Company's development, the Company will establish an enterprise management system that meets our needs in accordance with different market conditions and the actual situation of business expansion.

## **6. Financial Analysis**

### **6.1 Financing Scheme**

The initial capital of the enterprise consists of two parts, a bank loan of 3 million yuan and self-financing of 1 million yuan. Project The project members hold 100% of the shares.

The first part is to apply for a 3 million RMB business start-up loan based on the Guangdong Province's policy of subsidizing entrepreneurship and employment for ordinary college students. The estimated term of the loan is two years, and the current benchmark interest rate of the People's Bank of China is 4.75%, which can be adjusted downward by 20% according to the policy. According to the policy, the interest rate can be adjusted downward by 20%, i.e. 3.8%.

The second component is 1 million RMB of self-financing by members. Initial funding is mainly used for team building, platform construction, marketing, and management overhead.

## 6.2 Analysis of Financial Position

### 6.2.1 Balance sheet

资产负债表（单位：万元）							
项目			2023	2024	2025	2026	2027
货币资金			-426	360	508	834	2523
应收帐款			0	177	153	197	677
预付账款			-	-	-	-	-
其他应收款			-	-	-	-	-
存货			-	-	-	-	-
其他流动资产			30	45	49	57	89
流动资产合计			-396	582	710	1088	3289
长期股权投资			-	-	-	-	-
固定资产			117	183	272	479	676
减：累计折旧			7.02	10.98	16.32	28.74	40.56
固定资产净值			109.98	172.02	255.68	450.26	635.44
无形资产			100	100	100	100	100
非流动资产合计			209.98	272.02	355.68	550.26	735.44
资产总计			-186.02	854.02	1065.68	1638.26	4024.44
负债			300	300	300	300	300
负债合计			300	300	300	300	300
实收资本			400	500	500	1000	2000
资本公积			-	-	-	-	-
盈余公积			-	-	-	-	-
未分配利润			-886.02	54.02	265.68	338.26	1724.44
所有者权益合计			-486.02	554.02	765.68	1338.26	3724.44
负债与所有者权益合计			-186.02	854.02	1065.68	1638.26	4024.44

### 6.2.2 Statement of cash flows for the next five years

未来五年现金流量表（单位：万元）					
项目	2023	2024	2025	2026	2027
一、经营活动产生的现金流量					
销售商品收到的现金	1207	2435	6002	11220	19250
收到其他与经营活动有关的现金	0	0	0	0	0
经营活动现金流入小计	1207	2435	6002	11220	19250
购买商品、接受劳务支付的现金	828	1064	3784	7614	11459
支付给职工的现金	77	149	197	297	425
支付的各项税费	95	368	731	1294	2871
支付其他与经营活动有关的现金	410	357	417	517	608
经营活动现金流出小计	1410	1938	5129	9722	15363
经营活动产生的现金流量净额	-203	497	873	1498	3887
二、投资活动产生的现金流量					
购建固定资产、无形资产和其他长期资产支付的现金	117	66	89	207	197
投资活动产生的现金流量净额	-177	-66	-89	-207	-197
三、筹资活动产生的现金流量					
分配股额、利润或偿付利息支付的现金	47	72	277	458	1168
筹资活动产生的现金流量净额	-46	-71	-276	-457	-1167
四、累计净现金增加	-426	360	508	834	2523

### 6.2.3 Income statement for the next five years

未来五年利润表（单位：万元）					
	2023	2024	2025	2026	2027
主营业务收入	1207	2435	6002	11220	19250
减：主营业务成本	828	1064	3784	7614	11459
营业税金及附加	95	122	300	561	963
主营业务利润	284	1249	1918	3045	6828
减：营销费用	407	351	411	512	603
管理费用	77	149	197	297	425
财务费用	1	3	3	16	18
利润总额	-201	746	1307	2220	5782
减：所得税费用	0	246	431	733	1908
净利润	-201	300	876	1487	3874

The company's main business revenue mainly consists of two parts, agricultural products mall sales and enterprise carbon asset trading. In 2023, only B2B2C Carbon Mall sales revenue will be generated, and in 2024, B2B carbon services will be added to carbon asset trading.

## Analysis of profitability

The return on equity is a measure of a company's ability to generate net income from its own capital, so the Division calculates the return on equity to reflect the company's profitability.

盈利能力数据表						
		第一年	第二年	第三年	第四年	第五年
净资产收益率		41.40%	54.20%	114.20%	111.11%	104.00%

## Analysis of operational capacity

Current asset turnover is an important indicator for evaluating the utilization of a company's assets, so here the calculation of current asset turnover reflects the company's operational capacity.

运营能力数据表（单位：次）						
		第一年	第二年	第三年	第四年	第五年
流动资产周转率		-0.7	2.1	2.7	2.8	2.07

Through the above analysis of the Company's profitability and operational capacity, it can be seen that the Company's asset growth rate is high, the return on investment is high and the growth rate is fast, and the Company's performance in terms of profitability and operational capacity is relatively excellent.



## **7. Risk Analysis**

### **7.1 Financial risk and response**

At the early stage of the company's establishment, the company's credit rating is low and its scale is limited, so it is difficult for the company to obtain external financing to maintain normal operation. If the shortage of operating capital is not properly dealt with, the company will be caught in a dilemma, and at the same time, in the process of the company's operation, it is difficult to avoid the emergence of some people within the company to use their power for personal gain, and in the key links of covert operation, which will bring great damage to the company's finances.

Therefore, in the early stage of operation, the company will make a detailed financing plan, build a reasonable shareholding structure, continuously optimize the financing scheme, and strive to establish business reputation. At the same time, the company will formulate a detailed financial plan, clarify the direction and approximate amount of funds, and in the process of operation, clarify the standards of all kinds of expenses according to the actual situation, and understand the differences in costs and expenses. During the development stage, the company will clarify the movement of each fund, and regularly check the accounts to avoid the situation that the flow of funds is not clear. At different stages of development, different financing channels will be used to reduce financing risks. In addition, the company will make corresponding contingency plans in advance for different predicted consequences, and establish a financial risk evaluation system in line with the actual situation of the company. Invite professionals to provide regular knowledge training and moral education to the relevant employees in the company.

### **7.2 Market Risks and Responses**

Considering the broad development space of the market after the reopening of the CCER project, more companies will be attracted to enter the market, which will have a certain impact on the Company in a short period of time. In the gradually saturated market, the competition will become fierce. If the company loses its technological and market advantages, the profit will be greatly reduced, which will bring a heavy blow to the company. Moreover, as a new industry, the public has low awareness and recognition of the project, and lacks a

comprehensive and intuitive understanding of the industry, which poses a certain market development risk.

Therefore, in response to the ever-changing market, the company needs to continuously enhance the core competitiveness of its products, continuously develop new businesses, strategically layout the market, improve the company's marketing level and the quality of its products and services, actively conduct market research, and dynamically grasp the market trend in real time. Realize the whole process of customer relationship management, close customer contact, scientific analysis of customer needs and behavior, and improve customer recognition and satisfaction.

### **7.3 Management Risks and Responses**

In the early stage of development, the company will neglect to formulate a long-term development strategy due to the implementation of the present; and with the development of the company, after the project is on track, it is inevitable to reduce the efficiency of the company's employees and internal staff turnover, as a result, the company's operation and management problems, and market competitiveness will be reduced; and the quality of the products of the shopping mall will be lowered with the increasing demand, so that the user's experience will be greatly reduced, so that the company's reputation will be affected.

Therefore, the company needs to establish an efficient business mechanism, and in the early stage of development, it should formulate the company's long-term and short-term strategic planning according to the actual situation, and plan the general direction of development; as for the employees, the company should not only set up a perfect salary and performance appraisal and formulate a positive incentive system, but also pay attention to the physical and psychological care of the employees, and set up a strong caring system to enhance the employees' motivation and trust and satisfaction with the company. Trust and satisfaction to the company. The company should also optimize the talent introduction mechanism, according to the actual needs of hiring quality and suitable personnel, with the development of the enterprise, strengthen quality control, training specialists to supervise this aspect.

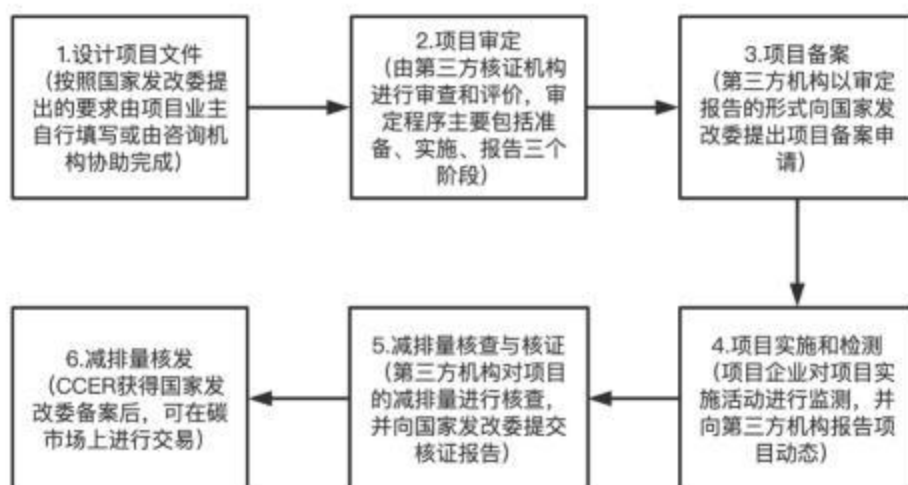
## **7.4 Technology Risks and Responses**

During the operation of the project, personal carbon asset records, transformation, and data on agricultural products purchased by e-commerce companies need to be stored in the central database of the platform, and the database of the enterprise may suffer from inhuman system failures such as viruses or technical problems of researchers and testers, which may affect the sustainability of the project. The database of the enterprise may suffer from unintentional system failures, such as viruses, or technical problems of the R&D staff and testers, which may affect the sustainable development of the project to a certain extent.

Therefore, at the initial stage of the project, the enterprise will increase the research fund and train the members of the R&D department; recruit relevant technical personnel and improve the comprehensive strength of the R&D department in the process of development to ensure the quality and accuracy of the technical team, and maintain the data monitoring and technical maintenance to ensure the quality of the carbon trading; overcome the technical barriers to establish an effective technical management mechanism, and carry out maintenance and updating in real time according to the feedback from users; and in the later stage, the enterprise will establish the technical management mechanism and carry out maintenance and updating in real time according to the feedback from the users. (c) Overcoming technical barriers and establishing an effective technical management mechanism to carry out immediate maintenance and updating based on feedback from users. In the future, when expanding the scope of business coverage, more efforts will be made to upgrade the technology and ensure the stability of the database.

## 8. Appendix

### Appendix 1 CCER Project Development Process



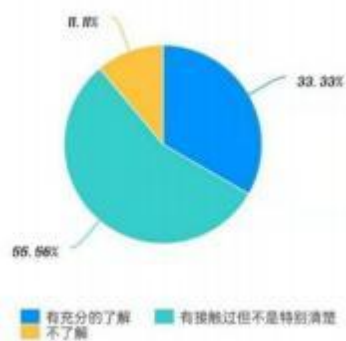
### Appendix 2 Carbon Neutral Planning in Major Global Countries and Regions

国家	目标时间	承诺性质	主要内容
奥地利	2040年	政策宣示	奥地利联合政府在2020年1月宣誓就职, 承诺在2030年实现100%清洁电力, 2040年实现碳中和
日本	2050年	政策宣示	2020年10月, 日本首相菅义伟宣布将在2050年实现碳中和, 加强在太阳能与碳循环等重点技术领域的研发与投资, 在未来10年关闭100座效率低下的火电厂, 鼓励发展新型发电站, 普及再生能源
韩国	2050年	政策宣示	2020年10月28日韩国总统文在寅宣称要与国际社会一起致力于在2050年实现碳中和目标
英国	2050年	法律规定	英国推行“绿色工业革命”计划, 将大力发展海上风能、推进新一代核能研发、加速推广电动车等, 在2050年实现碳中和目标
欧盟	2050年	提交联合国	欧盟制定了实现2050年碳中和目标的路线图, 将描绘2030至2050年间的欧盟温室气体减排轨迹以评估进展, 评估各成员国的采取措施
美国	2050年	行政命令	美国总统拜登重回《巴黎协定》, 宣布在2035年通过向可再生能源过渡实现无碳发电, 在2050年实现碳中和
德国	2050年	法律规定	德国第一部主要气候法于2019年12月生效
中国	2060年	政策宣示	到2030年, 中国单位国内生产总值二氧化碳排放将比2005年下降65%以上, 非化石能源占一次能源消费比重将达到25%左右, 中国力争于2030年前实现碳达峰, 2060年前实现碳中和

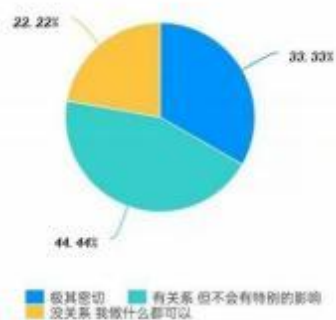
来源: 川财证券, 西部证券, 东吴证券, 头豹研究院编辑整理

## Appendix 3 User Questionnaire Survey

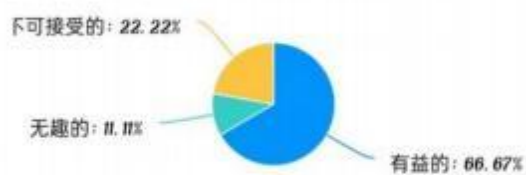
第1题：您对低碳生活了解程度有多少 [单选题]



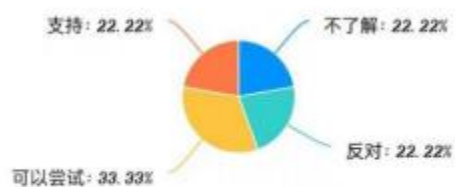
第2题：您认为低碳生活或者绿色生活离您的生活相关吗 [单选题]



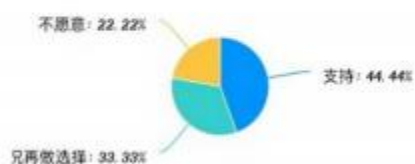
第3题：如何理解低碳生活 [单选题]



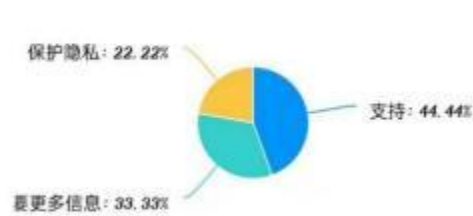
第4题：如果尝试用商品优惠券形式鼓励您参与低碳生活，您的态度是 [单选题]



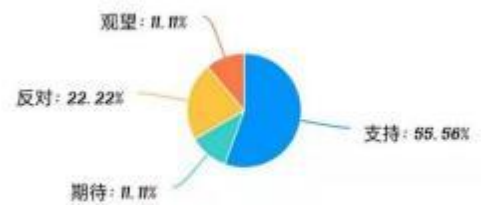
第5题：您对集合您的低碳数据作为资产销售的态度是 [单选题]



第6题：您对记录您的减碳行为将其数据可视化的意见是 [单选题]



第7题：您对整合有机农场信息提供聚合销售途径的看法 [单选题]



## Appendix 4Simplistic Carbon APP Partial Product Interface

### 1) Interface of "Simple Carbon Life" module



## 2) Interface of "Carbon Mall" module



## 3) Interface of the "Carbon Rank" module

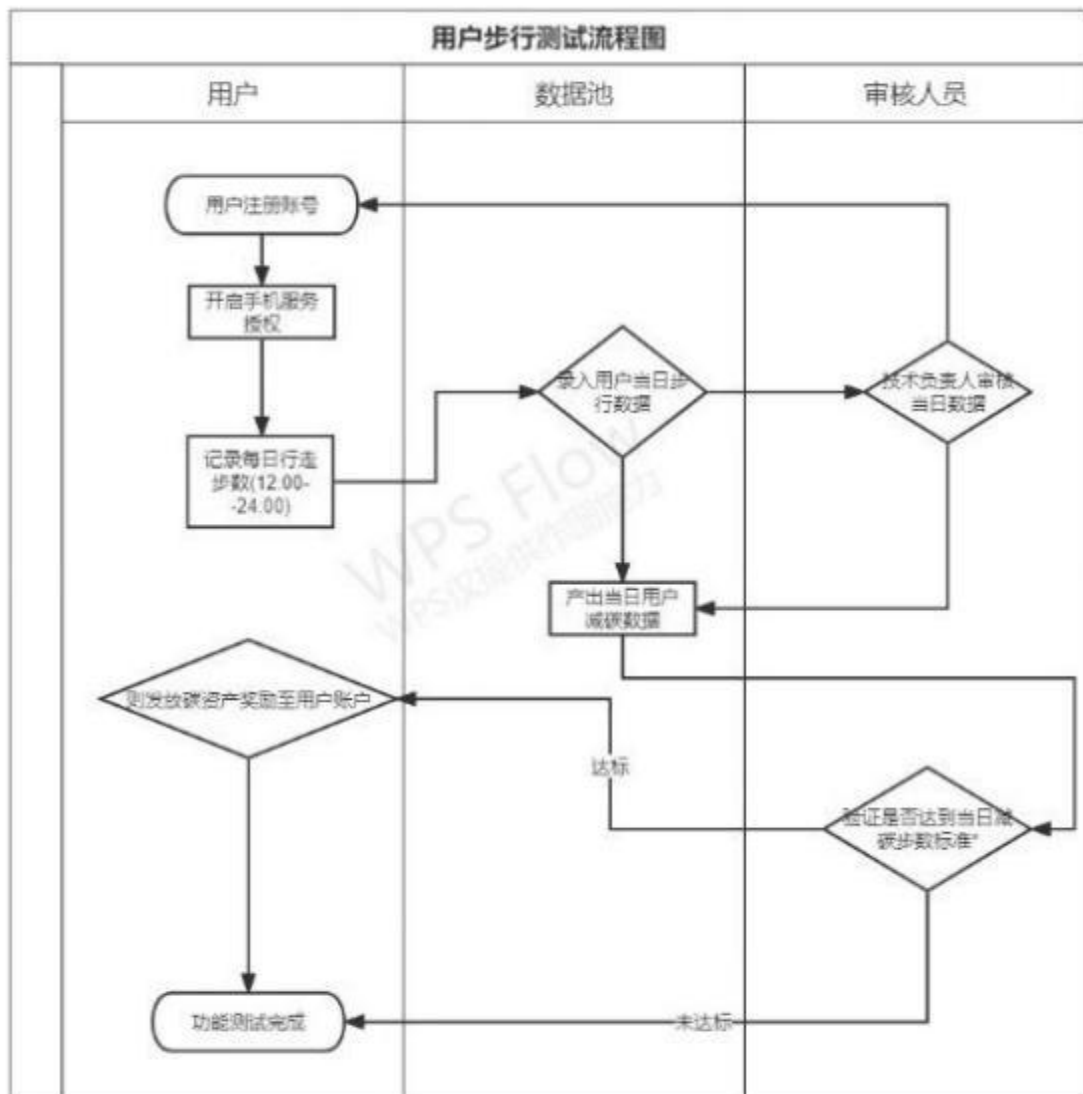


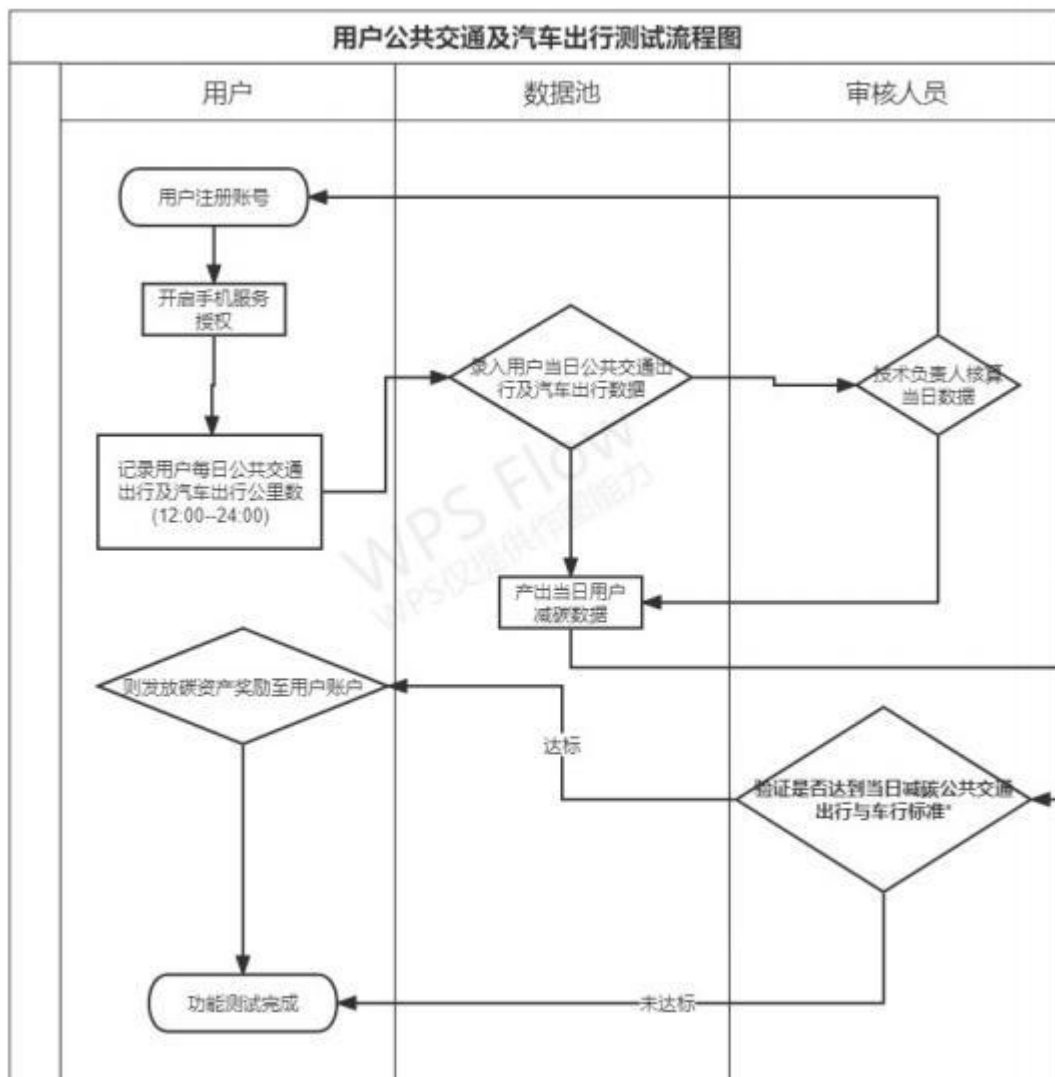


#### 4) Interface of "Carbon Community" module



## Appendix 5 Flow Chart for Users to Obtain Carbon Credits for Low Carbon Travel





## Appendix 6

### 1) Weights of the indicators of the urban attractiveness evaluation system

一级指标		二级指标	权重
个人碳积分	家庭生活 C1	家电（度） S1	0. 0618
		天然气（Nm <sup>3</sup> ） S2	0. 3561
		煤气（m <sup>3</sup> ） S3	0. 0453
		生活垃圾处理（kg） S4	0. 0984
	交通出行 C2	公共交通（公里） S5	0. 1156
		飞机（公里） S6	0. 0223
		火车（公里） S7	0. 0633
		轮船（公里） S8	0. 0596
		私家车（公里） S9	0. 0101
	一次性商品 C3	塑料袋（千个） S10	0. 0025
		纸制品（kg） S11	0. 0074
		一次性筷子（双） S12	0. 0068
	消费习惯 C4	肉类（kg） S13	0. 0192
		粮食（kg） S14	0. 0384
		衣物（件） S15	0. 0575

$$CR = \frac{\sum_{j=1}^m c_j (CI)_j}{\sum_{j=1}^m c_j (RI)_j} = 0.0374 < 0.1。 \text{ Passed the consistency test.}$$

## 2) Carbon Footprint Calculation Method

日常生活中常用个人碳足迹评估计算基本公式			
序号	日常生活行为		碳足迹评估计算公式
1	家庭生活	家电	$\text{CO}_2\text{排放量(kg)} = \text{耗电度数} \times 0.785$
		天然气等清洁能源	$\text{CO}_2\text{排放量(kg)} = \text{耗电度数} \times 0.785$
		化石能源	$\text{CO}_2\text{排放量(kg)} = \text{化石能源} \times 0.21$
		生活垃圾处理	$\text{CO}_2\text{排放量(kg)} = \text{垃圾千克数} \times 2.06$
2	交通出行	公交、地铁	$\text{CO}_2\text{排放量(kg)} = \text{公里数} \times 0.07$
		飞机	$\text{CO}_2\text{排放量(kg)} = \text{公里数} \times 0.08$
		火车	$\text{CO}_2\text{排放量(kg)} = \text{公里数} \times 0.05$
		轮船	$\text{CO}_2\text{排放量(kg)} = \text{公里数} \times 0.054$
		私家车	$\text{CO}_2\text{排放量(kg)} = \text{公里数} \times 2.7$
3	一次性商品	塑料袋	$\text{CO}_2\text{排放量(kg)} = \text{塑料袋/千个} \times 0.1$
		纸制品	$\text{CO}_2\text{排放量(kg)} = \text{纸制品千克数} \times 3.5$
		一次性筷子	$\text{CO}_2\text{排放量(kg)} = \text{一次性筷子/千双} \times 23$
4	消费品	肉类	$\text{CO}_2\text{排放量(kg)} = \text{肉类千克数} \times 1.24$
		粮食	$\text{CO}_2\text{排放量(kg)} = \text{粮食千克数} \times 0.94$
		衣物	$\text{CO}_2\text{排放量(kg)} = \text{衣服件数} \times 6.4$

## 3) Hierarchical analysis code:

```
disp('Please enter the judgment matrix A(nth degree)');
```

```
A=input('A=');
```

```
[n,n]=size(A);
```

```
x=ones(n,100);
```

```
y=ones(n,100);
```

```
m=zeros(1,100);
```

```
m(1)=max(x(:,1));
```

```
y(:,1)=x(:,1);
```

```
x(:,2)=A*y(:,1);
```

```

m(2)=max(x(:,2));
y(:,2)=x(:,2)/m(2);
p=0.0001;i=2;k=abs(m(2)-m(1));
while k>p
    i=i+1;
    x(:,i)=A*y(:,i-1);
    m(i)=max(x(:,i));
    y(:,i)=x(:,i)/m(i);
    k=abs(m(i)-m(i-1));
end
a=sum(y(:,i));
w=y(:,i)/a;
t=m(i);
disp(w);

    % Below is the consistency test
CI=(t-n)/(n-1);RI=[0 0 0.52 0.89 1.12 1.26 1.36 1.41 1.46 1.49 1.52 1.54
1.56 1.58 1.59];
CR=CI/RI(n);
if CR<0.10
    disp('The consistency of this matrix is acceptable!');
    disp('CI=');disp(CI);
    disp('CR=');disp(CR);
end

```

Appendix 7 Platform Program Partner Companies and Related Patents

公司简介



广州惠源环保科技有限公司是一家科技为导向，从事水、电、气、热、环保领域产品的技术研发、生产、销售、安装服务于一体的高新技术企业。公司拥有自主知识产权商品和技术进出口权，是广东高新技术企业、中国环保骨干企业之一。惠源环保科技有限公司秉承“科技精英，关爱自然”的经营理念，依靠科技，不断的开拓，创新和实践，努力提升产品的实用性，推进产品的人性化。同时，公司还与多所高校、科研机构以及多家国外企业建立了伙伴关系，形成立体网络式科研开发系统，确保公司的科研开发力和产品的技术水平持续处于领先地位。惠源环保科技有限公司坚持“用户至上，质量第一”的经营理念，采用客户信息档案管理系统，为用户实现了从售前咨询到售后服务全程跟踪服务，及时准确的为用户提供“一站式”综合应用解决方案。惠源始

产品分类

空气净化系统... (13)

循环水过滤器... (13)

循环水处理... (17)

加热换热系统... (5)

加药设备 (2)

餐厨垃圾处理... (3)

平流沉淀池 (5)

猜你想要

