Project1

Branded green plant based on virtual interaction

TinyGreen

| Research	Ideation	User Testing	Final Design
Background Research	Concept	Objective	App Design
Survey	Experience Flowchart	Participant	User Journey
Market Research	Value Framework	Findings	
Interview& Persona	Process Optimization		

TinyGreen hopes to use virtual interaction to connect plants and the Internet. It will enhance the plant raising experience of young people and let more people start to raise plants and protect the environment.
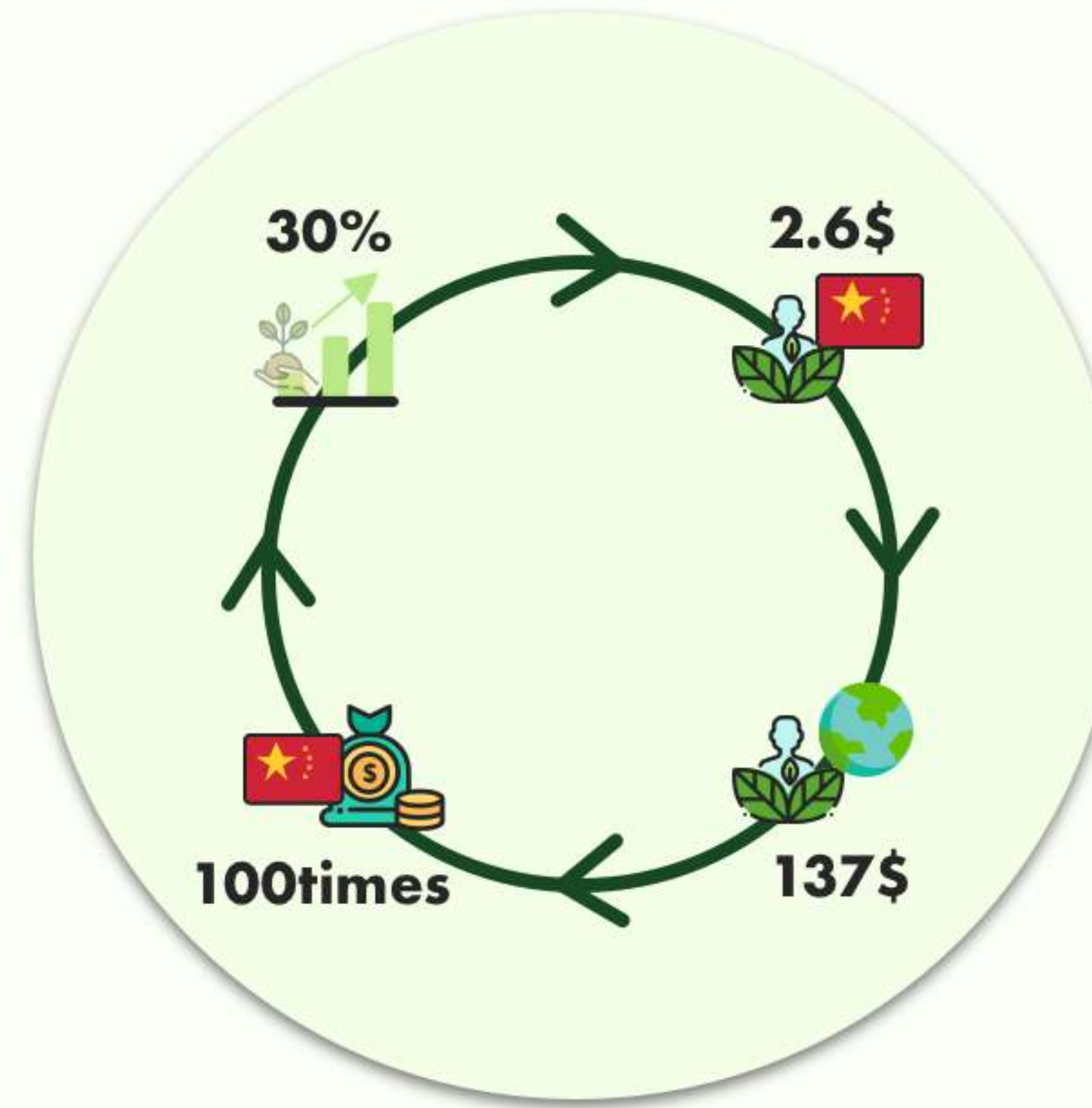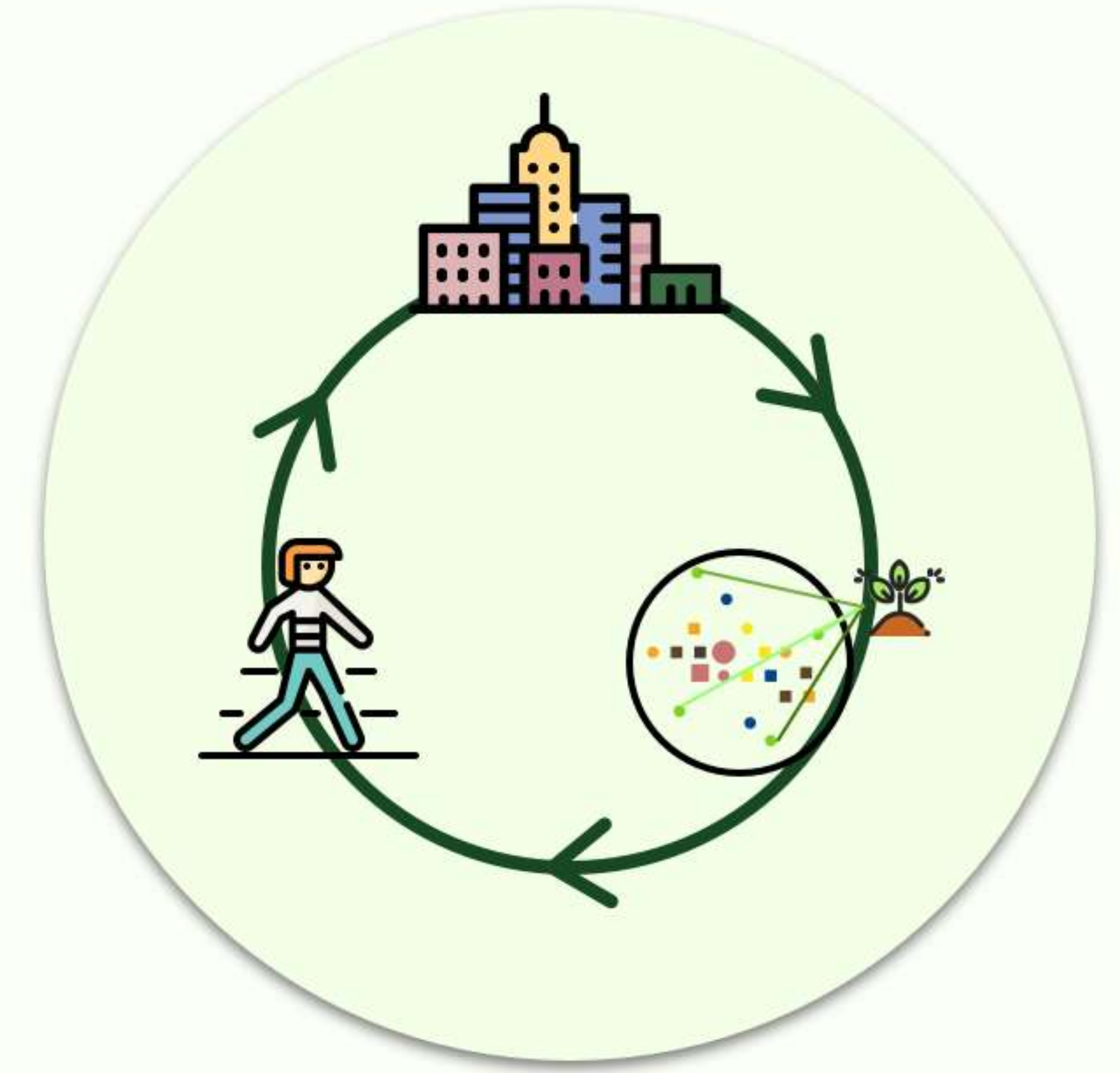
Teamwork- Project leader

BACKGROUND RESEARCH
—PLANT MARKET

30% **2.6$**

100times **137$**
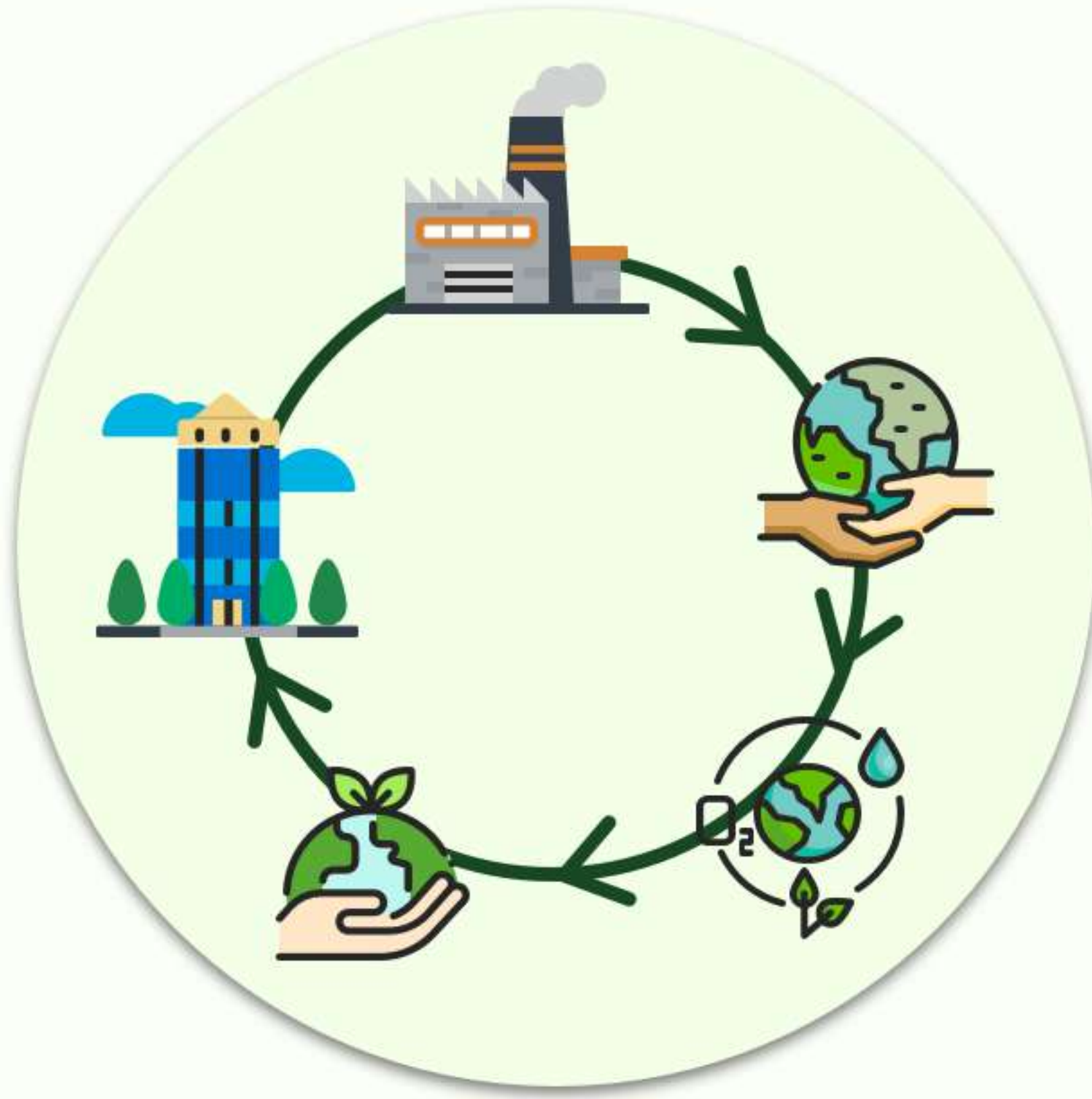
Urban development has led to a decline in plants, fewer opportunities for young people to access plants.

The growth of annual spend on plants in China is 30% while per capita spending is merely 2.6$. Comparing with international average 137$, there is still 100 times space of growth.

The plant market is shrinking and mostly restrained in suburbs. It takes a long time to purchase green plants.

The **need to upgrade** the purchase process; the **reduction of urban plants**; China's **per capita flower consumption** accounted for **1.89%** of the **world's** average flower consumption level, which indicates that there is still **100 times** more room **for growth** in this industry.

BACKGROUND RESEARCH

—IOT&PLANT

Real plant

Virtual plant

**More intelligent
More interesting
More vivid**

With the development of the Internet of Things, more and more devices and items are connected to the Internet. So connecting plants to the network will make plants more intelligent, intertesting, and vivid.

BACKGROUND RESEARCH
—INTERACTIVE MODE UPGRADE

2007

Flower vine

Tencent

Promote "virtual plant" growth through mutual interactions between friends.

+Human interaction

2009

QQ Farm

Tencent

Bring fun to players by "raising sims" and interacting with friends.

+Game interaction

2016

ANT Forest

Alipay

Through a friend interaction, raise a virtual tree in Alipay. When the tree grows up, the nonprofit organization can "buy" the virtual "tree" planted by the user in the ant forest, thereby planting a solid tree in reality.

+Interaction with reality

Now

TinyGreen

/

TinyGreen monitors the health condition of plants and presents data to users. With special reminder on the app, users are prompted to take good care of the plant, like Ant Forest, funny interactive function also engages users.

+Interaction of the IOT

SURVEY — PLANTING EXPERIENCE OF THE YOUTH

Will people buy plants?

146 (28.68%)
Don't know how
to raise a plant.

92 (18.17%)
Never bought a plant.

280 (55.01%)
Know a little.

239 (46.95)
Ever bought plants.

83 (16.31%)
Know how to raise plant.

178 (34.97%)
Never bought but ever raised a plant.
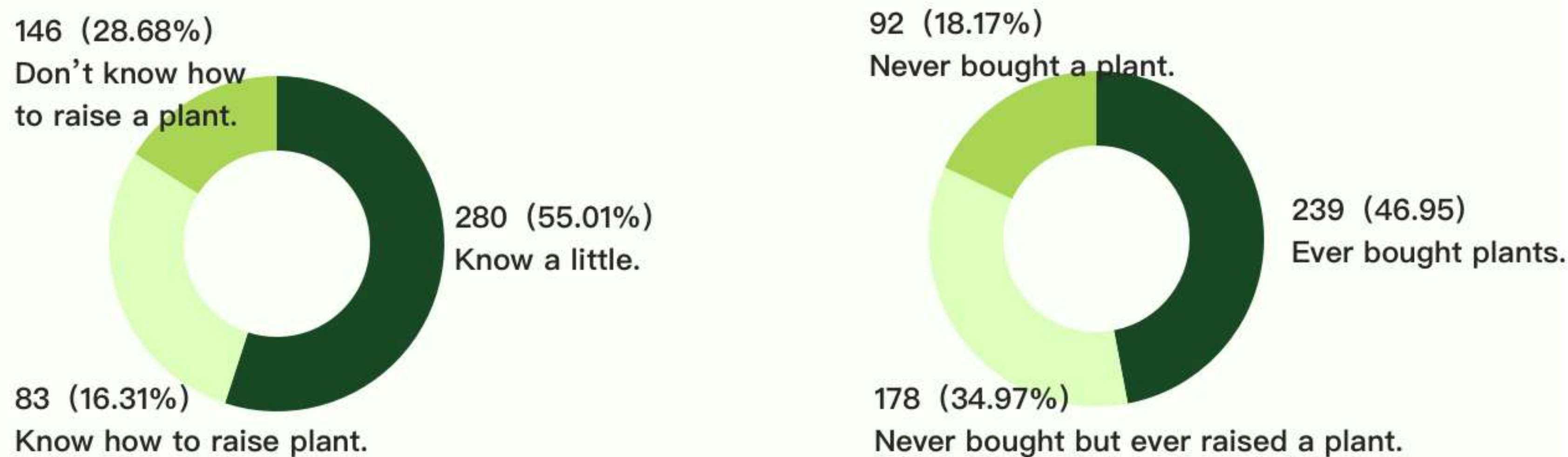
- Most people have a tendency to buy green plants, but many of them lack raising skills.

why do they refuse to buy plants?

54.35%
Lack relevant plant raising skill, can't take care of them, worry the plant will end up dying soon.

53.26%
The maintenance process is not convenient.

5.4%
Ugly package, never desire to buy.

45.65%
Not interested.

9.8%
Unreasonable price.

0   20   40   60

-1.Lack skills and knowledge for care.
-2.too troublesome to raise a plant.

SURVEY — PLANTING EXPERIENCE OF THE YOUTH

Where do people wish to buy plants?

76.42%
Any coffee shop, bookstore, restaurant. Or from private sellers on WeChat.

28.47%
Go to the plant market.

40.47%
Online shopping on Taobao.

55.4%
Special green plant shop.

3.34%
Others.

(x-axis: 0 20 40 60 80)

- From the perspective of share economy, selling plants in different scenarios not only maximizes the utilization of existing resources, but also optimizes the purchasing process for users.

How do people expect virtual plant (app) to function?

58.94%
Simply remind you to water the plant.

58.74%
Feedback on plant health conditions. eg. light, fertility, temperature, humidity.

47.35%
Interact with your friends and experience the fun of caring virtual plants.

45.58%
Improve learning and work efficiency

35.56%
Personalized on plant–care guide.

(x-axis: 0 20 40 60 80)

-Remind users to maintain, feedback relevant data, interact with friends will be the main function of virtual plants.

SURVEY CONCLUSION

82% OF RESPONDENTS HAVE RAISED PLANTS.
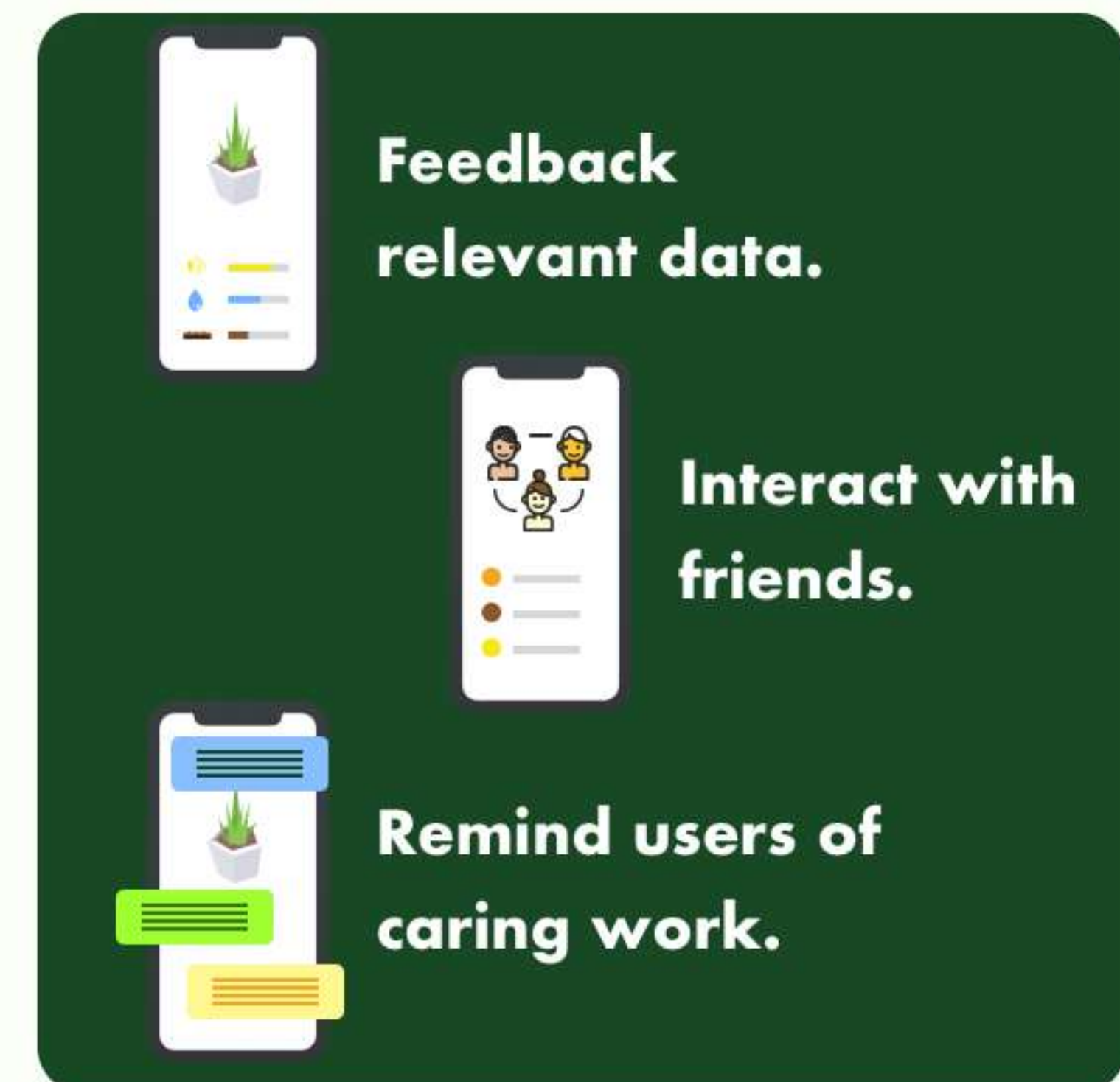
Female
337

Male
172

Office worker
55

< Student
430

THE MAIN REASON FOR NOT BUYING PLANTS.

Lack plant-care skill.

Fear of plant death.

Lack of time

CONSUMERS WANT PRODUCTS TO BE ...

Cheap

Easy to raise

Entertaining

Exquisite

THE MAIN FUNCTION OF VIRTUAL PALNTS

Feedback relevant data.

Interact with friends.

Remind users of caring work.

MARKET RESEARCH

Click&Grow

HERE'S HOW THE CLICK AND GROW SYSTEM WORKS
JUST 3 EASY STEPS!

1. add pods   2. add water   3. plug it in   4. enjoy
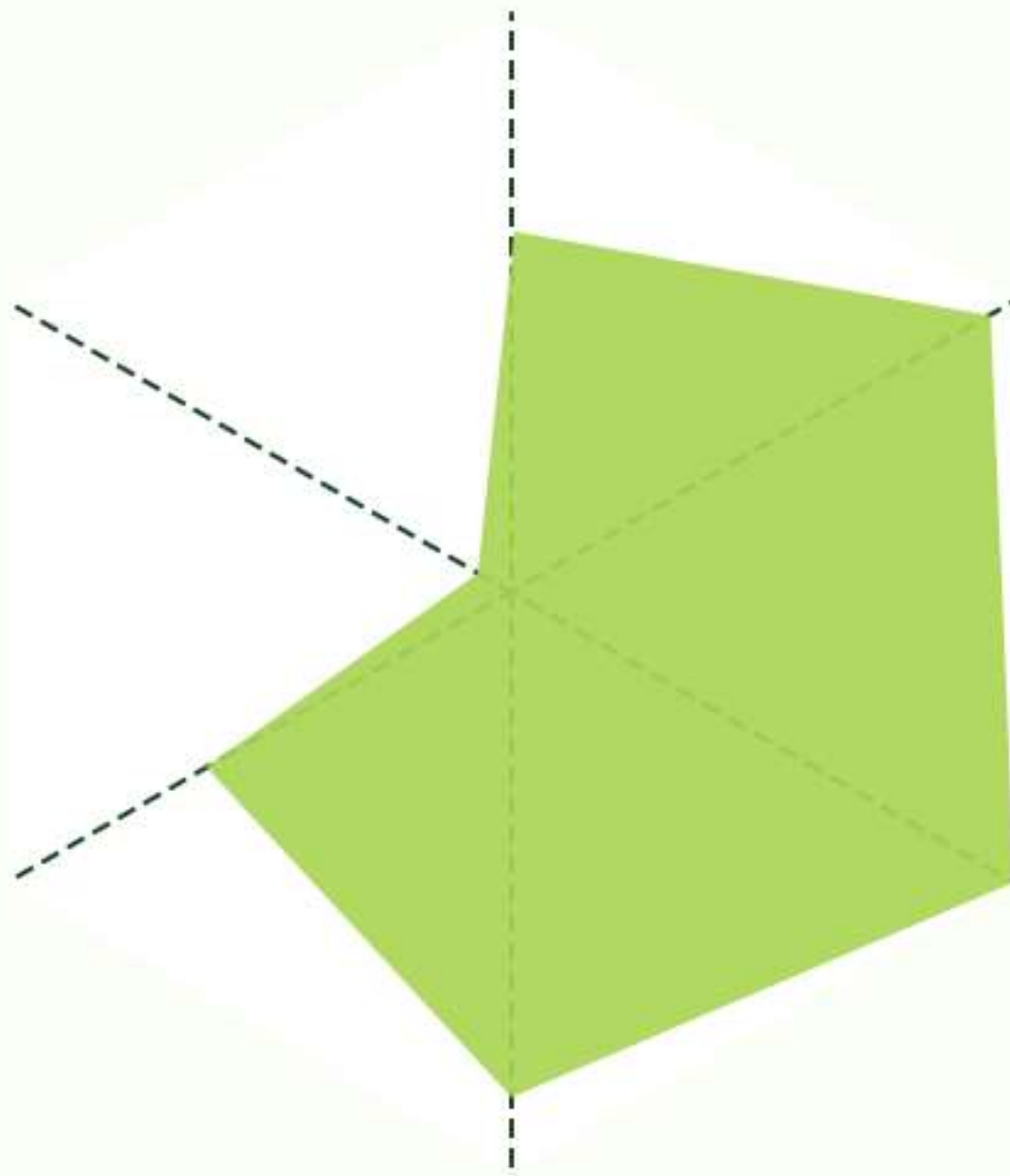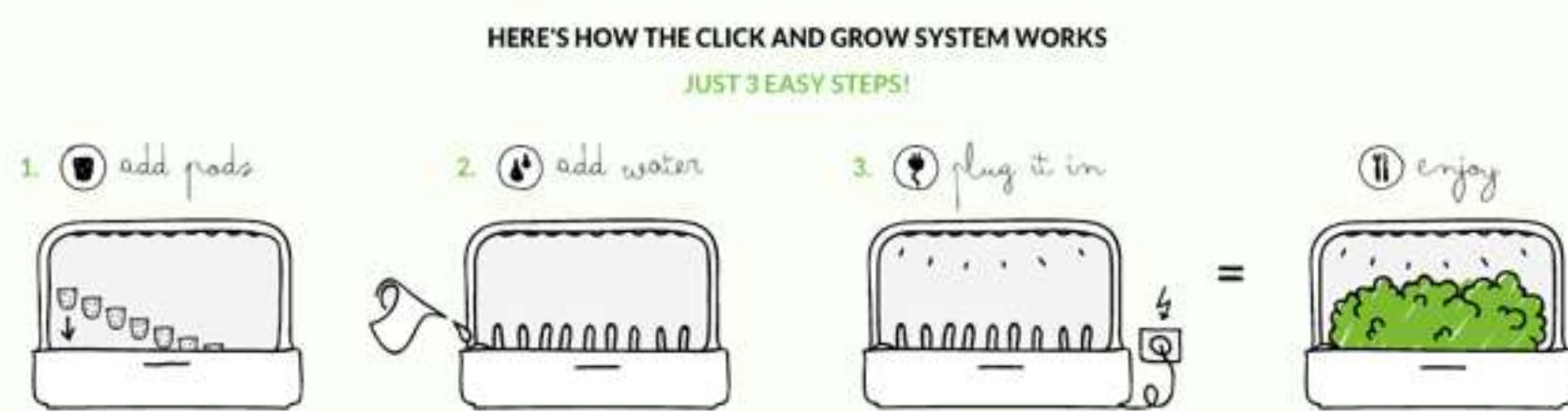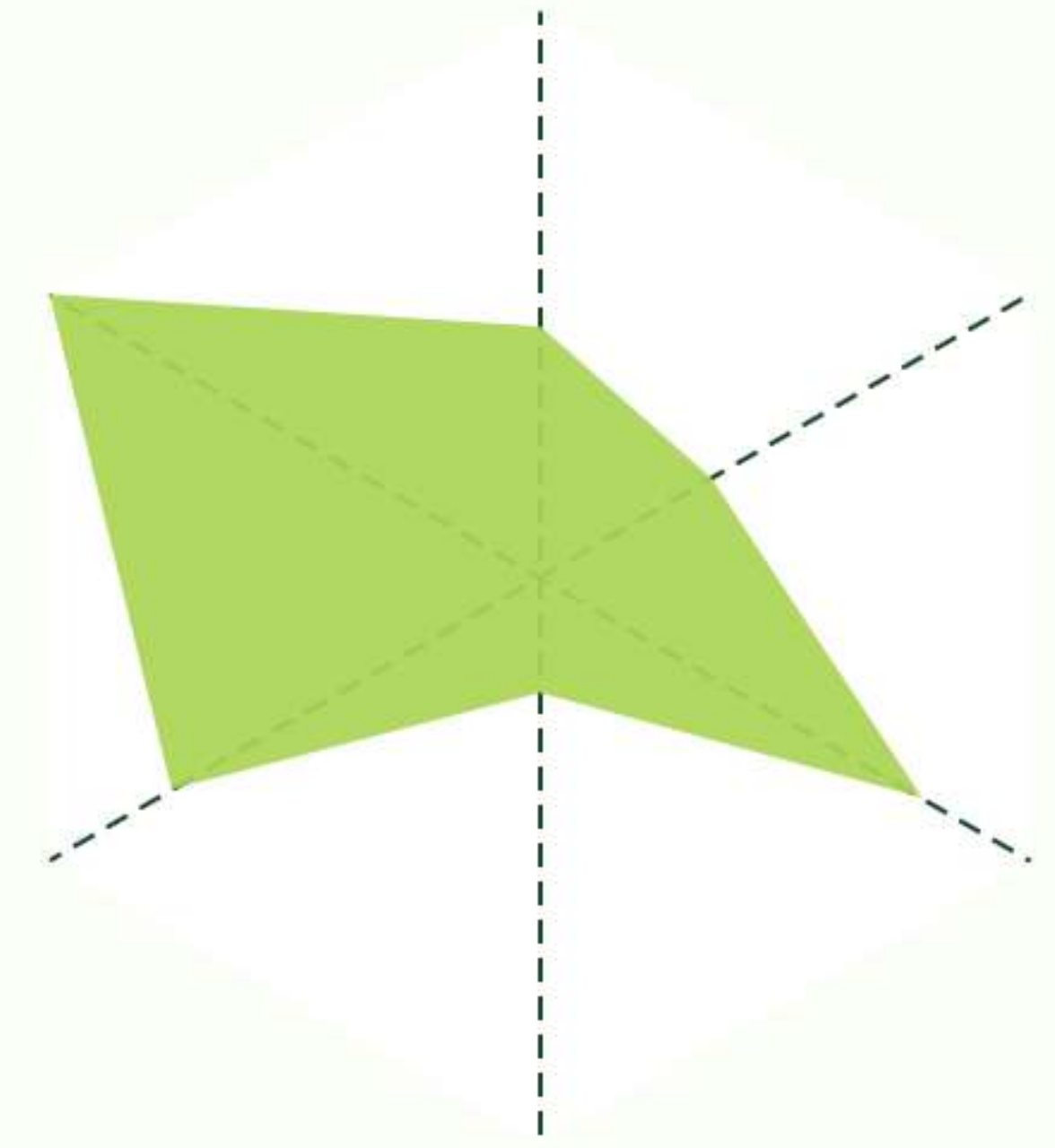
The Smart Garden 3 takes care of your plants automatically by making sure they have enough water, light and nutrients at all times.

TinyGreen

TinyGreen combines sensors, seeds, virtual plants with precise maintenance tips which brings better user experience.

Radar chart axes:
- Easy accessibility
- Survival rate
- Easiness
- Experience
- Service
- Cheap

Flower care

Easy three-step easy to use

The flowers and plants monitors can "talk" to plants, help you accurately convey the care of each pot of flowers in your home, and get the right water nutrients and the temperature of the flowers. It is simple to raise flowers.

INTERVIEW

Participant

College Student

Objectives

I mainly want to know....

1.The deep reason why college students buy or not buy plants.
2.If a professional plant raising app is offered, how do they wish it to function?

Findings

1. College students lack companionship, they expect emotional support, and they need to purify the air.
2. College students need accurate and timely plant care guidelines. And their purchasing power is weak.
3. Hope to interact with plants, plants are like pets.

PERSONA

NanQin

Age：
22
Occupation:
Student

Introduction

Nan loves life and nature. She lives in a dormitory with five other students, so she always feel the air quality in the dormitory is very poor. But she can't afford an air purifier, so plant is a good substitute. She thinks that raising a pot of plants is also a spiritual sustenance.however, she also worries that she can't take good care of the plants."

Feature

love plants and raised plants before. But lack of plant care skills. Limited spending power.

PainPoint

Lack of plant care skills, fear of plant death. The air quality in the living environment is not good.

Expectiation

Purify dormitory air, pet-like plant.

INTERVIEW

Participant

Office worker

Objectives

I mainly want to know....

1. The deep reason why college students buy or not buy plants.
2. If a professional plant raising app is offered, how do they wish it to function?

Findings

1. Office workers need to alleviate visual fatigue and pass boring time with vividly decorated working environment.
2. Office workers believe that the process of purchasing plants is too time consuming. And they lack plant care skills.
3. Office workers expect the app to remind them plant care tips timely and interact with friends.

PERSONA

Alex

**Age:
25
Occupation:
Programmer**

Introduction

Alex has been working in Beijing for three years. The time he spent in the company is longer than at home. His usual work is repetitious and boring sometimes. Everyday he stares at computers for hours, he really hopes to improve the quality of the air, relieve visual fatigue and pass the boring time. Sometimes he wants to buy potted plants in the office but Considering the inconvenience to purchase, and his lack of plant care skill, he just let go of the idea.

Feature

Too busy to intentionally go somewhere to select plants; Lack of plant care skills.

PainPoint

Too busy to buy plants; Lack of plant care skills; Need to relieve visual fatigue.

Expectiation

Interesting experience to kill boring time; Relieve visual fatigue.

CONCEPT
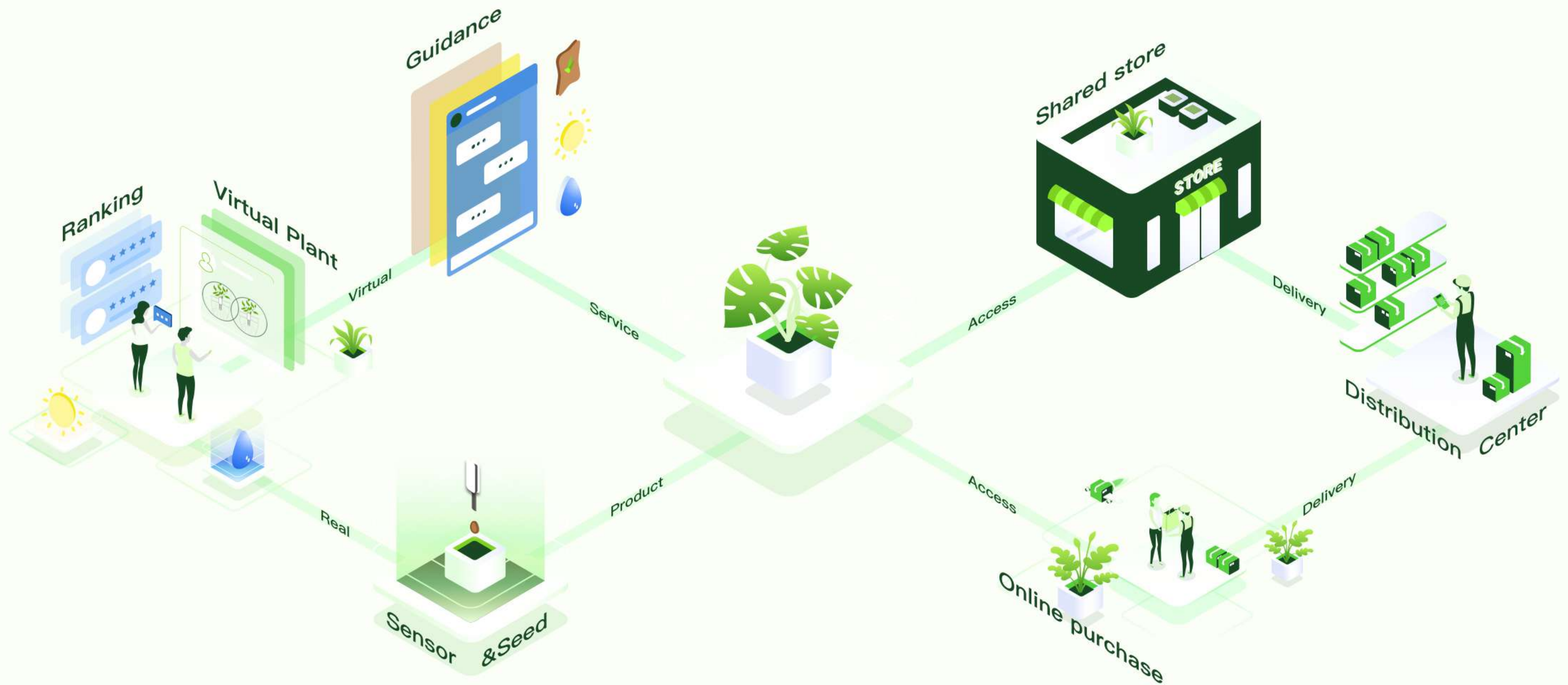
TinyGreen will be more than just a plant, it is more like a smart pet. Connecting the plants and the virtual plants on the APP with the sensor will not only help you to raise your plant more easily, but also can bring you interesting interactions with plants and friends.

Consumers can buy TinyGreen everywhere, we will cooperate with various stores like cafes, bookshops, restaurants by providing TinyGreen plants for decoration in those places so as to better reach our consumers.

EXPERIENCE FLOWCHART

Diversified scene

Interactive experience

STORE

Shared store

Purchase

1.Consumers go to shop, but not intentionally to buy plants.

2. Through the sharing economy, consumers will find TinyGreen in restaurants, coffee shops, bookstores, clothing stores and so on.

3. After finding TinyGreen, consumers scan the QR code on the flower pot. Start interacting with virtual plants.

4. After the experience, consumers can purchase TinyGreen offline or online to further experience more with TinyGreen.

5. Finally, users complete easy and enjoyable maintenance work, they also interact with other plant lovers on TinyGreen, they share TinyGreen with more friends.

VALUE FRAMEWORK

LEVEL OF VALUES

Meaningful Innovation

Transformation

Society

Ecosystem

Doing good

Organization

Doing well

User

Experience

Value for money

Eco-Footprint

Eco-Effectiveness

Happiness

Belonging

Profit

Sustainability

Stability

Core Values

Social Responsibility

Livability of the Environment

Wealthy

Shared Drivers

Reciprocity

Ecology

Economy

Wellbeing

Meaningful life

Psychology

Sociology

Help users with plant caring easily

Through the Internet of Things and sensors, TinyGreen transmits plant data to virtual plants. It not only provides professional guidance and reminders for users who lack plant care skills, but also making plants more like pets and becoming users' emotional companion.

USER

Expand the green plant market

TinyGreen solves the pain points of users and enlarges the green plant market. Create more touching points to reach consumers, enabling more interaction between plants and people. Stimulate user purchase in various senarios.

ORGANIZATION

Promote the development of green economy

Attract more people to raise plants, and promote the economic development of green plants while making the earth more green. Promote green plants prevalence will achieve both economic and social benefits, with greener environment and better sustainability.

ECOSYSTEM

Decorate people's life with green

Interactive technology brings fun to life, TinyGreen creates fun and arouses a green concern of customers, people develop a harmonious relationship with plants. At the same time, plants can create more economic benefits for people.

SOCIETY

PURCHASE PROCESS OPTIMIZATION

BEFORE

Stage	Want to buy plants	Plan and guidance	Purchase process	Purchase decision	Experience
Behavior	Discover their own needs	Find nearby green plant markets and online plants shop	Online product comparison;Spend a lot of time going to the offline green market.	Decide whether to buy.	without guidance, independent plant care process

Experience

AFTER

Stage	Shopping	Diverse Scenario – shopping, eating, bookstores, cafes.	Access TinyGreen app and interact with virtual plant.	Purchase decision	Experience TinyGreen	Share
Behavior	Go shopping, entertainment and leisure.	Notice TinyGreen somewhere and being attracted, consider if they need it.	Scan QR code View virtual plants Learn about TinyGreen	Decide whether to make offline payment or mobile payment.	Interact with virtual plants, online friends; Online caring tip reminder.	Share to social networks Share with friends

Experience

USER TESTING

Amendment

Lo-fi prototype

Office Worker

College Student

Experience &Testing

Confuse on access to certain functions.

Other demands

Possible improvement on interface design.

Confusion on certain function access

Button settings are not obvious

Interface design is not very appealing

Conclusion

New version

What I do

I conducted user test of two target groups to find out the defects of the original low–fidelity prototype, and identified some common user concerns. Taking the precious user feedback, I made some improvements and tested the new version again to ensure a high level customer satisfaction.

TinyGreen

"Raising plants, decorating life."

Search for Bluetooth

Scan plant QR code

Harvest energy

Log in

Data

9:41

TINY GREEN

点滴微绿 装饰生活

EMAIL

PASSWORD

SIGN IN

New Account?

9:41

LEVEL 7

Gardenia

humidity ●   illuminance ●   fertility ●

90%

Home   Store   Ranking   My

9:41

LEVEL 3

Gardenia

humidity ●   ! illuminance ●   fertility ●

90%

Prompt

Home

APP DESIGN

Couple function

More detailed data

Remind friends
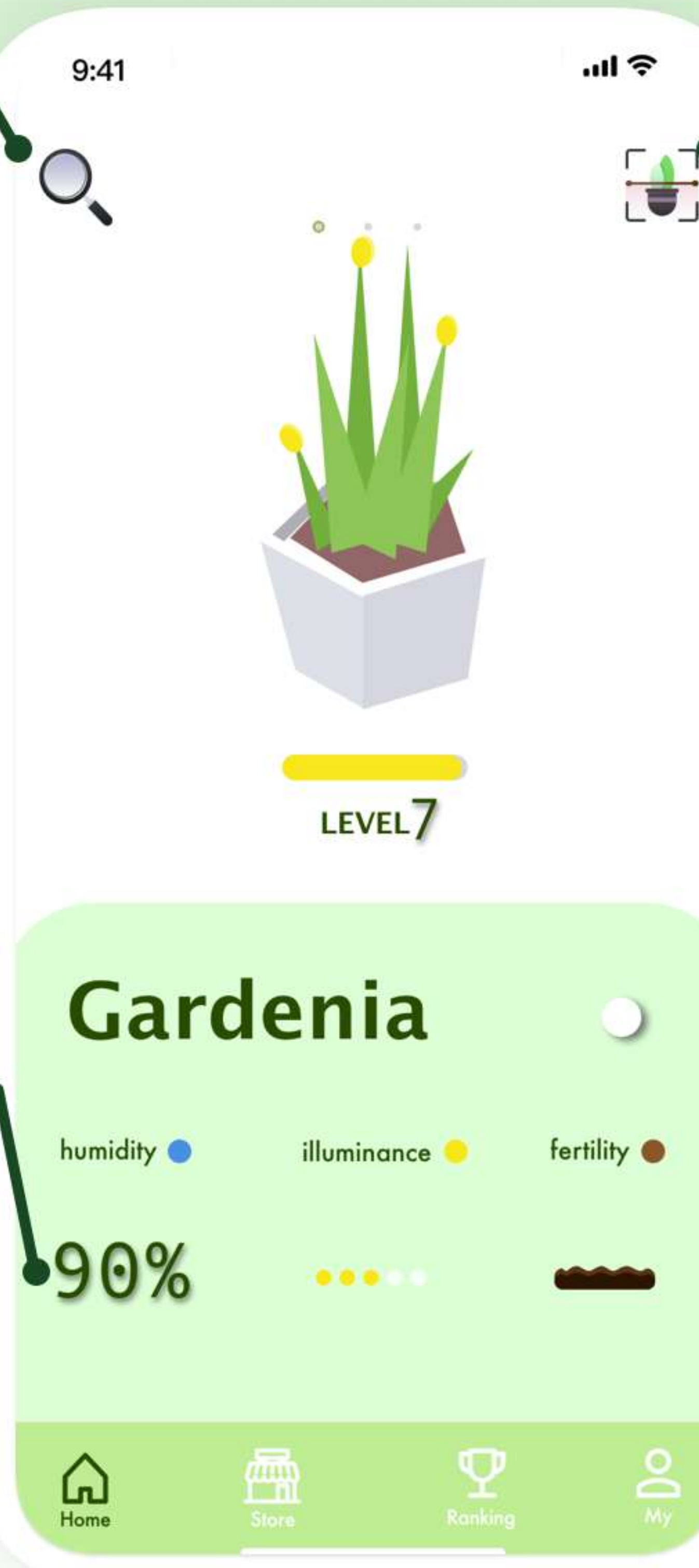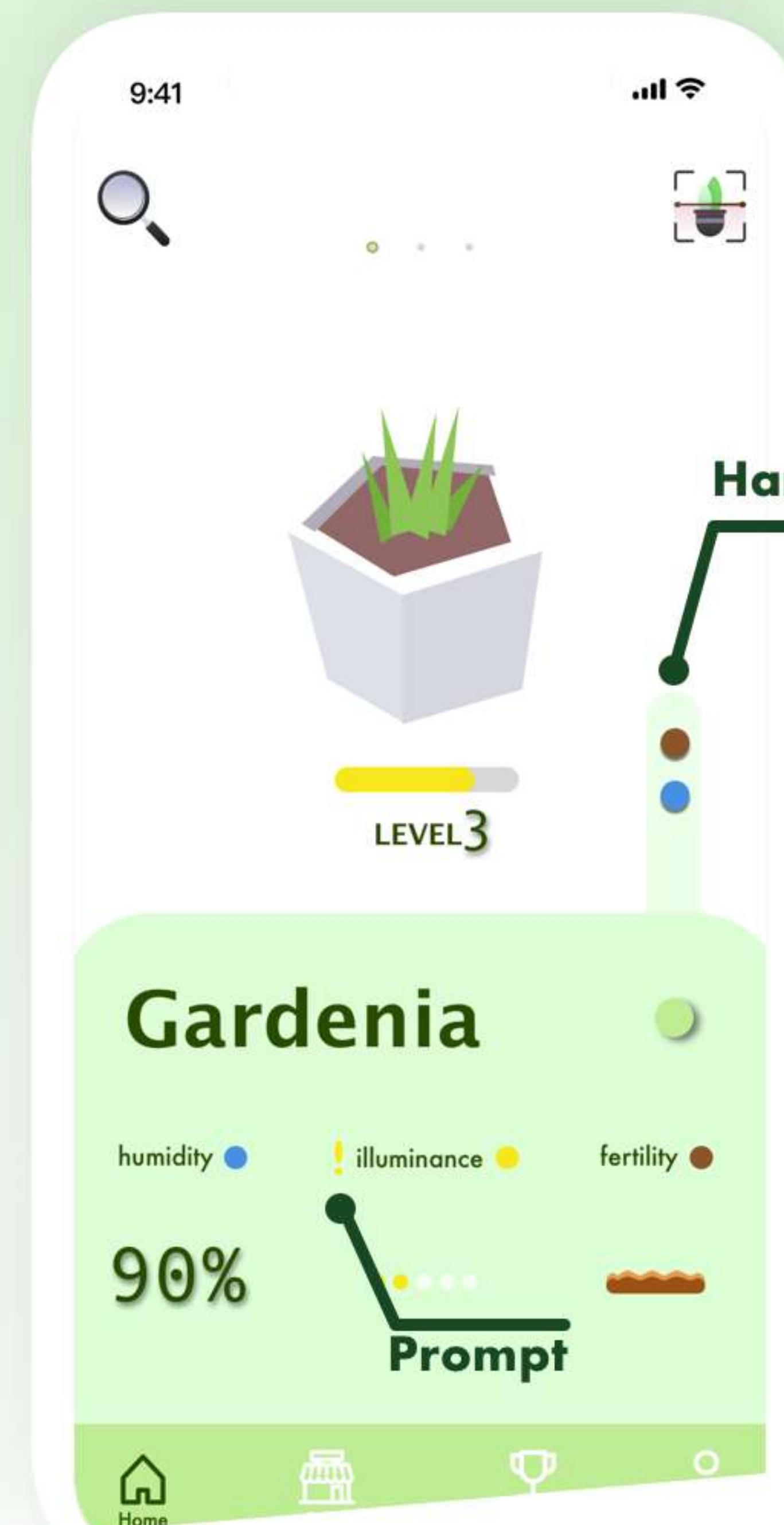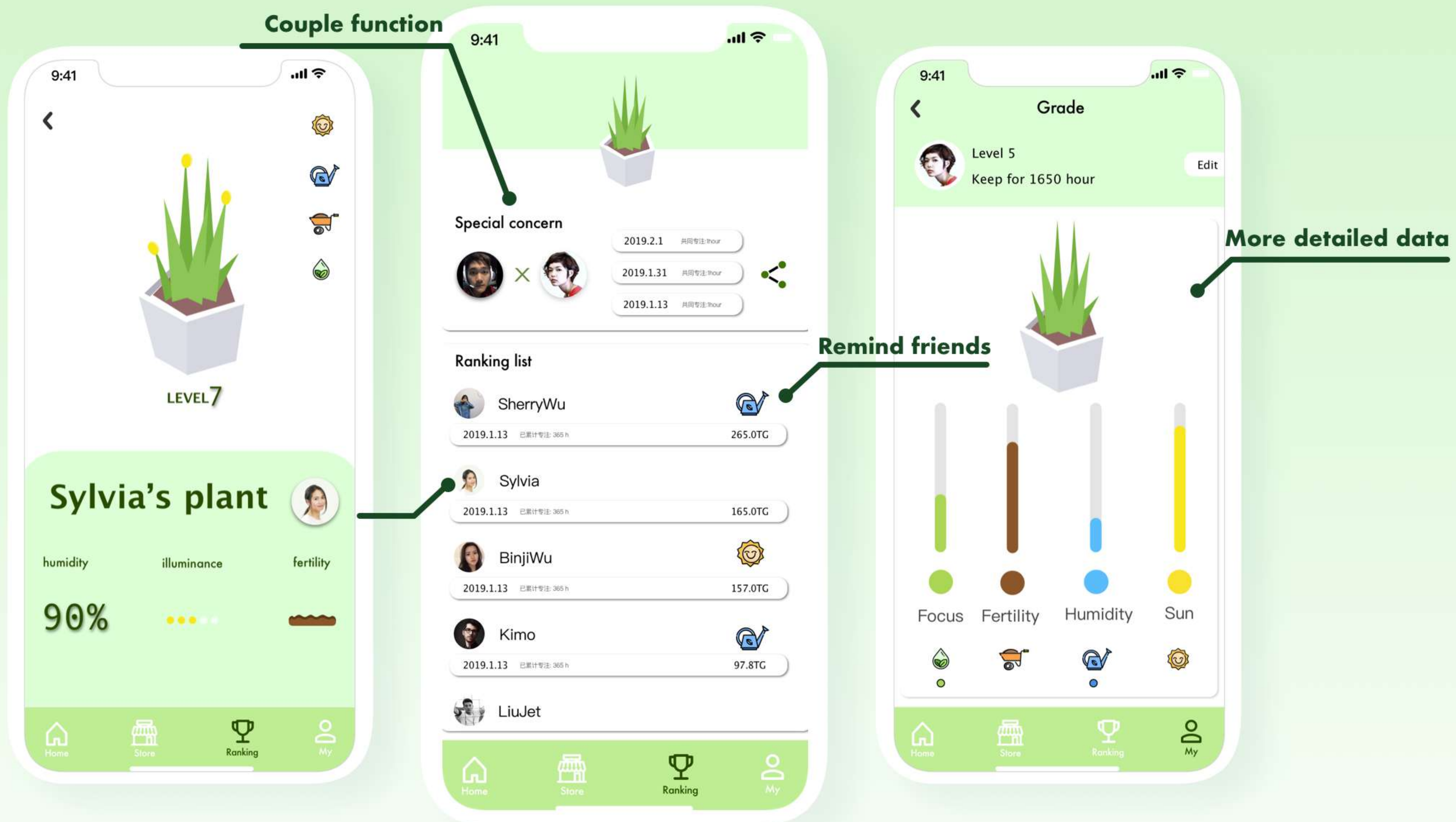
Ranking&Me

TinyGreen enables users to interact with other plant owners by reminding them to water, accumulate energy and accept rewards of good plant care work.

Slide page

Exchange seed

User comment

9:41

<

Monstera

Price: 80RMB
Sales: 1,765

📝 Reviews:
"The time people have to spend actually tending to the plants is minimized."

Buy

Home   Store   Ranking   My

9:41

Aloe

Price: 50RMB
Sales: 1,765
Reviews: 📝

Buy

Adoption of seed

🌱 ▐▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬ ›

2200/2500

Home   Store   Ranking   My

9:41

< Adoption of seed

▬▬▬▬▬▬▬▬▬▬▬

2200/2500

Use your focus energy in exchange for free seeds.   Adoption

Home   Store   Ranking   My

Store&Adoption

Users can buy plants on TinyGreen, and also exchange real plant seeds by collecting green energy.

STORYBOARD
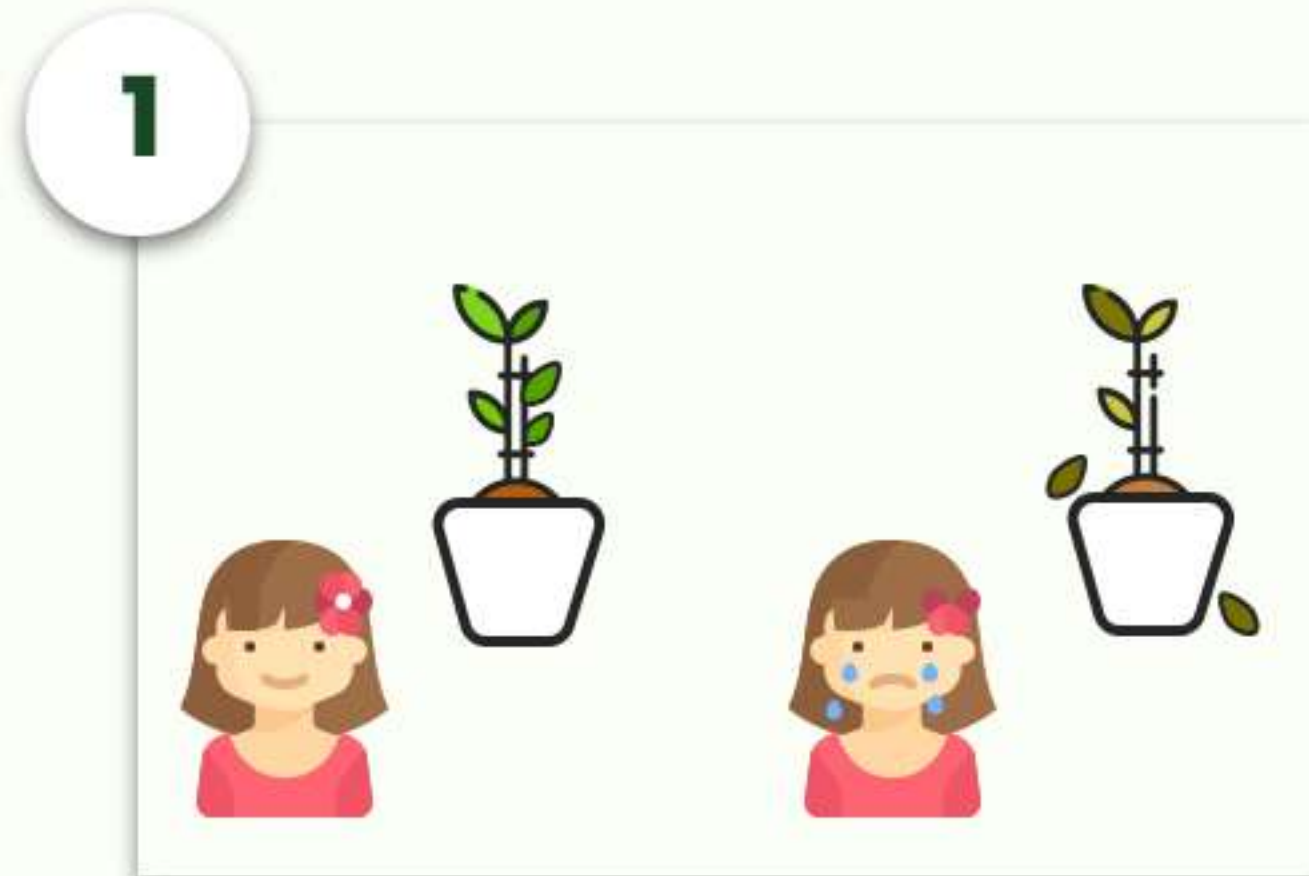
1

When I was young, I raised a plant. But without specific skills, it died soon. So I stopped trying to grow plants.

2

Cafe&TinyGreen

As I grow up, I really hope to re-grow plants, but I always worry that I will kill plants again, until I found the small potted plant in the coffee shop...
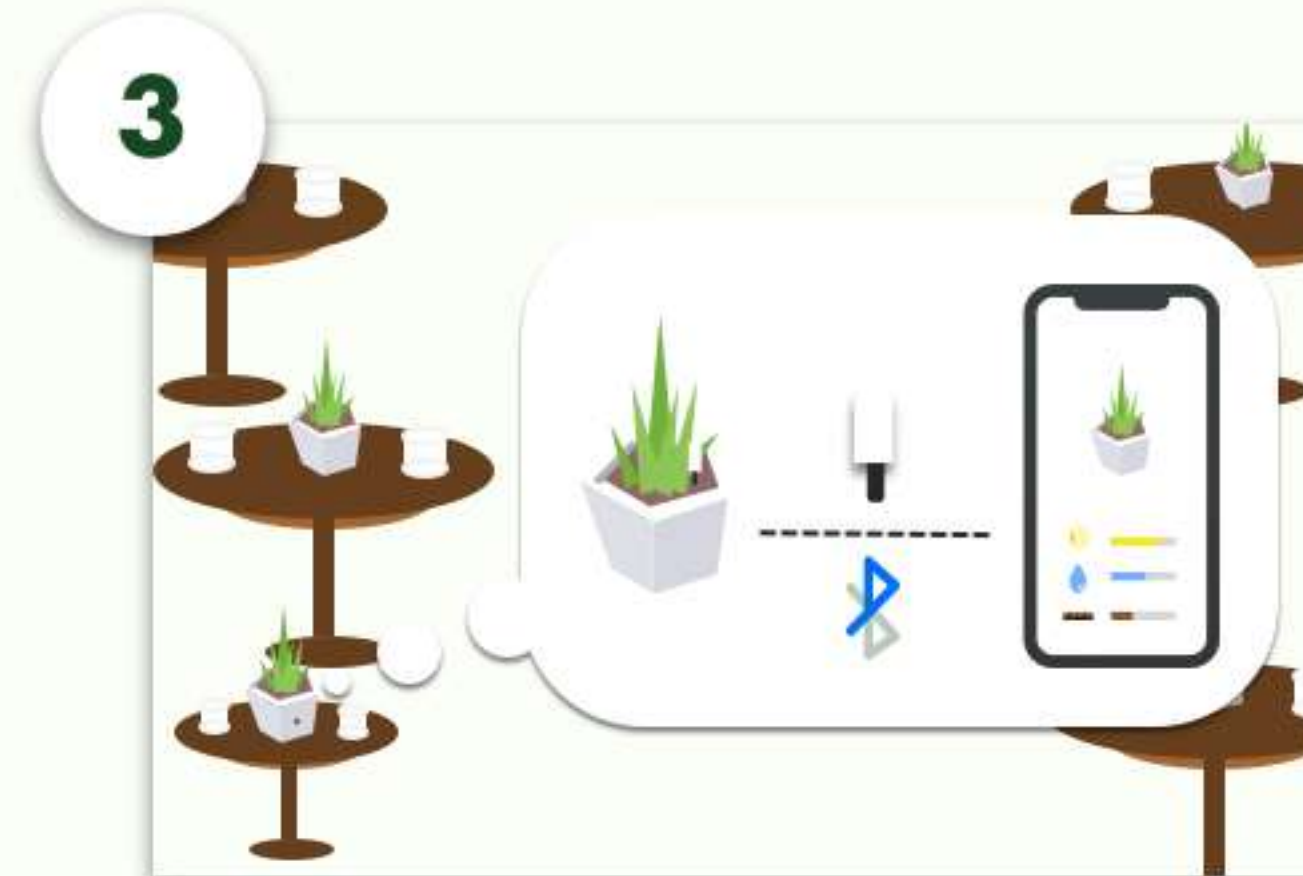
3

I found these plants named TinyGreen. Through Bluetooth and sensor, TinyGreen transmits the data of the plant to the phone, with corresponding image of virtual plant.
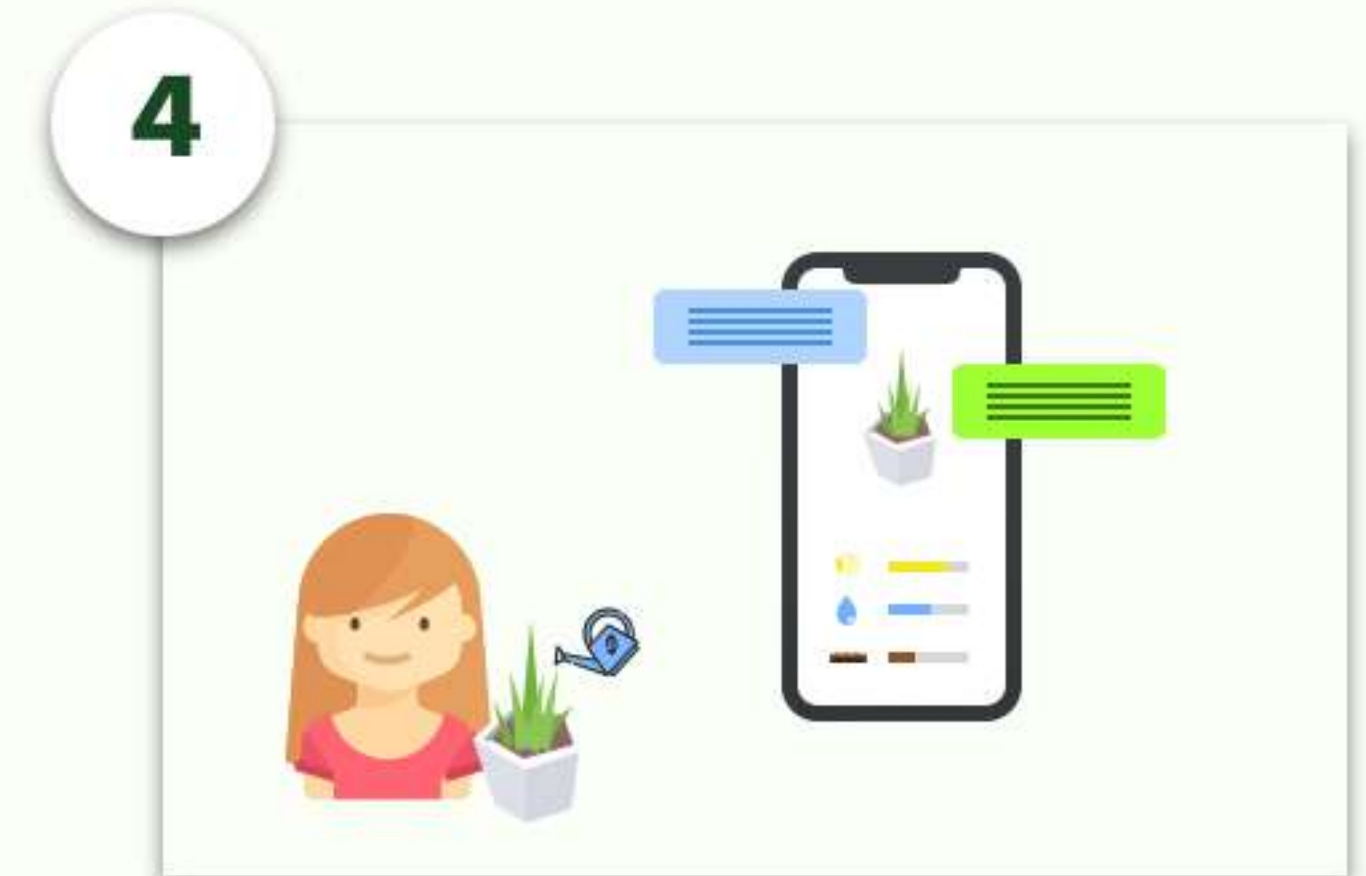
4

After obtaining specific data on light intensity, humidity, soil fertility, the app will send a reminder to the user to care the plant. So I can use fragmentary time to complete the plant caring process easily.

5

TinyGreen

After knowing the whole mechanism, I bought a TinyGreen product in the coffee shop. It contains pots, seeds, sensors, and fertilizer packs. Just like a gift!

6

bookstores

restaurant

market

Later, I found TinyGreen in shopping malls, bookstores, and restaurants. I don't need to go to the green plant market to buy plants anymore.

7

Everytime I complete the real plant caring process, the value of plant health indicators received by the sensor rises. By harvesting the virtual energy, actual synchronous growth is realized.
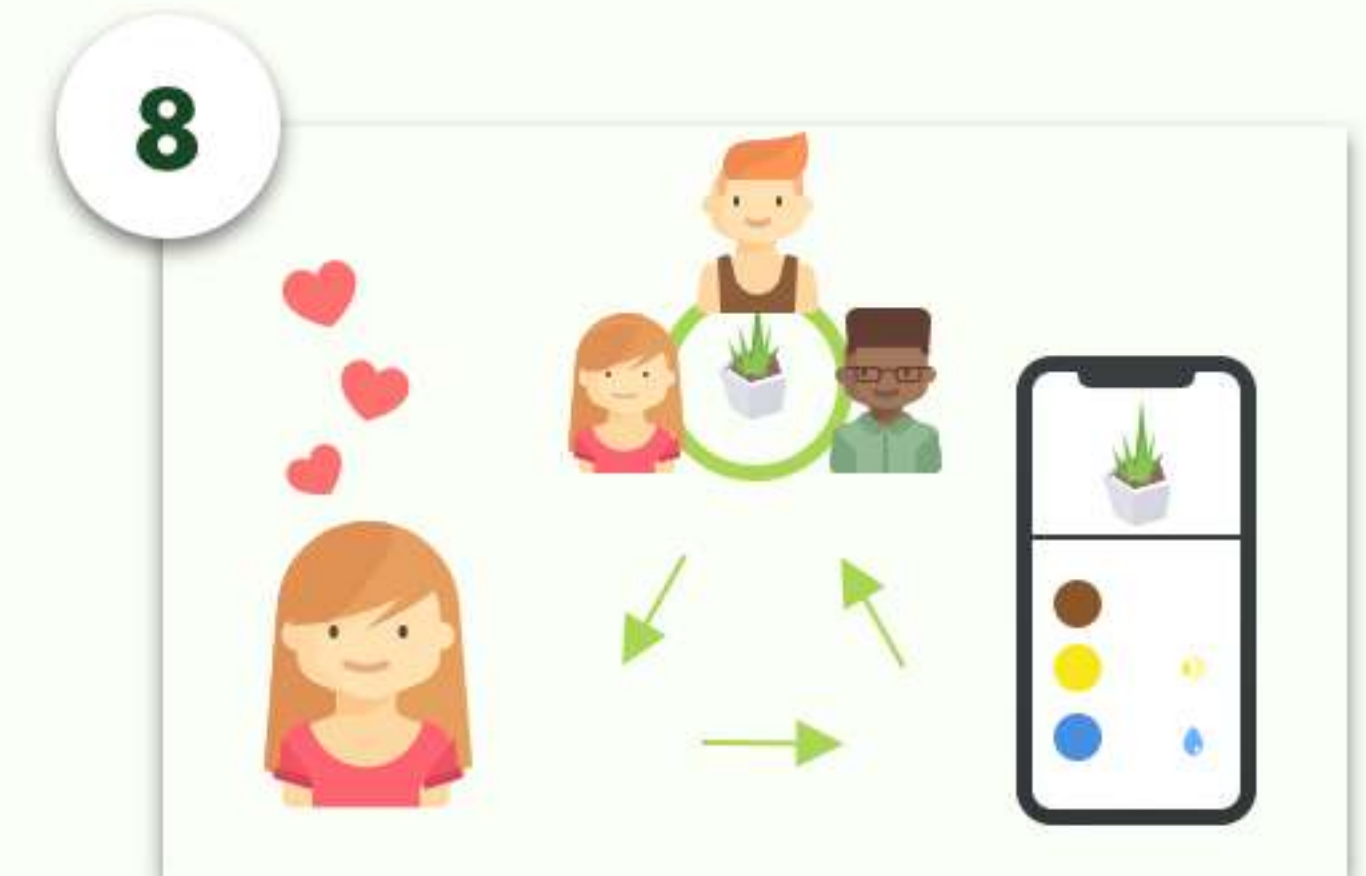
8

At the same time, I can also get rewards by reminding my friends of daily plant care and interact with friends!

TinyGreen